

chain nodes :

1 2 3 4 5 6

chain bonds :

1-2 2-3 3-4 4-5 5-6

exact/norm bonds :

3-4 4-5 5-6

exact bonds :

1-2 2-3

G1:O,S

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS

=> d his

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FILE 'REGISTRY' ENTERED AT 11:05:40 ON 31 JAN 2003

L1 STRUCTURE UPLOADED

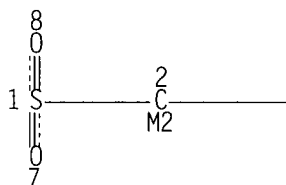
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L3 4752 S L1 FULL

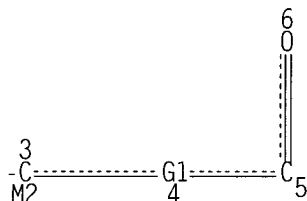
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L1 STR

09 S10



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Page 1-B

VAR G1=9/10

NODE ATTRIBUTES:

HCOUNT	IS M2	AT	2
HCOUNT	IS M2	AT	3
NSPEC	IS C	AT	1
NSPEC	IS C	AT	2
NSPEC	IS C	AT	3
NSPEC	IS C	AT	4
NSPEC	IS C	AT	5
NSPEC	IS C	AT	6
NSPEC	IS C	AT	7
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DEFAULT MLEVEL IS ATOM

MLEVEL IS CLASS AT 1 2 3 5 6 7 8 9 10

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

L3 4752 SEA FILE=REGISTRY SSS FUL L1

100.0% PROCESSED 9168 ITERATIONS

4752 ANSWERS

SEARCH TIME: 00.00.02

=> fil capl

FILE 'CAPLUS' ENTERED AT 11:06:46 ON 31 JAN 2003

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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE COVERS 1907 - 31 Jan 2003 VOL 138 ISS 6

FILE LAST UPDATED: 30 Jan 2003 (20030130/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'FIONA' IS DEFAULT FORMAT FOR 'CAPLUS' FILE

=> s 13

L4 2222 L3

=> s 14 and dyes/sc

129428 DYES/SC

L5 92 L4 AND DYES/SC

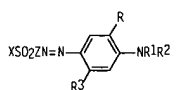
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L5 ANSWER 1 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 2002:55585 CAPLUS
 DOCUMENT NUMBER: 137:126419
 TITLE: Disperse-reactive azo dyes containing
 acetoxyethylsulfonyl or vinylsulfonyl groups and their
 production
 INVENTOR(S): Oh, Sea Wha; Shin, Seung Rim; Kim, Tae Kyung; Kim, Sun
 Il; Shin, Jong Il
 PATENT ASSIGNEE(S): Korea Research Institute of Chemical Technology, S.
 Korea
 SOURCE: PCT Int. Appl.. 29 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002057370	A1	20020725	WO 2002-KR69	20020116
W: CH, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				

PRIORITY APPLN. INFO.: KR 2001-2733 A 20010117
 KR 2001-3009 A 20010118
 KR 2001-4026 A 20010129

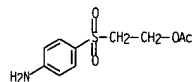
OTHER SOURCE(S): MARPAT 137:126419
 GRAPHIC IMAGE:



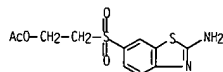
ABSTRACT:
 The invention relates to water-insol. disperse-reactive dyes (I; R, R1, R2, R3 = H, alkyl, alkoxy, cyanoalkyl, aminoacetyl; X = 2-acetoxyethyl, vinyl; Z = arom. or benzothiazole connecting group) by diazotization of XSO2ZNH2 and coupling with the appropriate substituted aniline. I have good fastness properties. In an example, orange (lambda.max 459 nm) 2-acetoxyethyl 4-aminophenyl sulfone.fwdarw.N,N-diethylaniline was prepd. in 88.5% yield.

IT 73567-87-0P, 2-Acetoxyethyl 4-aminophenyl sulfone
 443917-39-3P

L5 ANSWER 1 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 (Reactant or reagent)
 (diaz component; prodn. of disperse-reactive azo dyes contg.
 acetoxyethylsulfonyl or vinylsulfonyl groups)
 RN 73567-87-0 CAPLUS
 CN Ethanol, 2-[(4-aminophenyl)sulfonyl]-, acetate (ester) (9CI) (CA INDEX
 NAME)

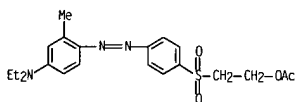


RN 443917-39-3 CAPLUS
 CN Ethanol, 2-[(2-amino-6-benzothiazolyl)sulfonyl]-, acetate (ester) (9CI)
 (CA INDEX NAME)

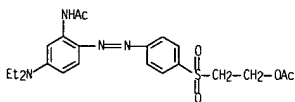


IT 443917-10-0P 443917-11-1P 443917-12-2P
 443917-13-3P 443917-14-4P 443917-15-5P
 443917-18-8P 443917-19-9P 443917-20-2P
 443917-21-3P 443917-22-4P 443917-23-5P
 443917-24-6P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (dye; prodn. of disperse-reactive azo dyes contg. acetoxyethylsulfonyl
 or vinylsulfonyl groups)
 RN 443917-10-0 CAPLUS
 CN Ethanol, 2-[[4-[[4-(diethylamino)-2-methylphenyl]azo]phenyl]sulfonyl]-,
 acetate (ester) (9CI) (CA INDEX NAME)

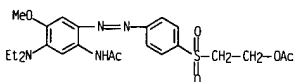
L5 ANSWER 1 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



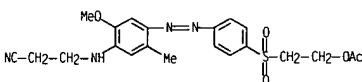
RN 443917-11-1 CAPLUS
 CN Acetamide, N-[2-[[4-[[2-(acetoxyloxy)ethyl]sulfonyl]phenyl]azo]-5-
 (diethylamino)phenyl]- (9CI) (CA INDEX NAME)



RN 443917-12-2 CAPLUS
 CN Acetamide, N-[2-[[4-[[2-(acetoxyloxy)ethyl]sulfonyl]phenyl]azo]-5-
 (diethylamino)-4-methoxyphenyl]- (9CI) (CA INDEX NAME)

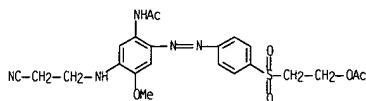


RN 443917-13-3 CAPLUS
 CN Propanenitrile, 3-[[4-[[4-[[2-(acetoxyloxy)ethyl]sulfonyl]phenyl]azo]-2-
 methoxy-5-methylphenyl]amino]- (9CI) (CA INDEX NAME)

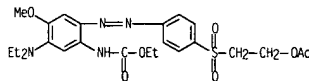


RN 443917-14-4 CAPLUS
 CN Acetamide, N-[2-[[4-[[2-(acetoxyloxy)ethyl]sulfonyl]phenyl]azo]-5-[(2-
 cyanoethyl)amino]-4-methoxyphenyl]- (9CI) (CA INDEX NAME)

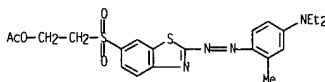
L5 ANSWER 1 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



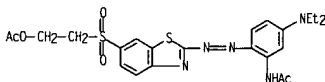
RN 443917-15-5 CAPLUS
 CN Carbamic acid, [2-[[4-[[2-(acetoxyloxy)ethyl]sulfonyl]phenyl]azo]-5-
 (diethylamino)-4-methoxyphenyl]-, ethyl ester (9CI) (CA INDEX NAME)



RN 443917-18-8 CAPLUS
 CN Ethanol, 2-[[2-[[4-(diethylamino)-2-methylphenyl]azo]-6-
 benzothiazolyl]sulfonyl]-, acetate (ester) (9CI) (CA INDEX NAME)

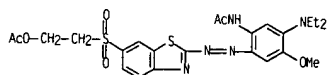


RN 443917-19-9 CAPLUS
 CN Acetamide, N-[2-[[6-[[2-(acetoxyloxy)ethyl]sulfonyl]-2-benzothiazolyl]azo]-5-
 (diethylamino)phenyl]- (9CI) (CA INDEX NAME)



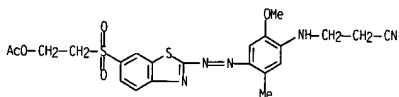
RN 443917-20-2 CAPLUS
 CN Acetamide, N-[2-[[6-[[2-(acetoxyloxy)ethyl]sulfonyl]-2-benzothiazolyl]azo]-5-
 (diethylamino)-4-methoxyphenyl]- (9CI) (CA INDEX NAME)

L5 ANSWER 1 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



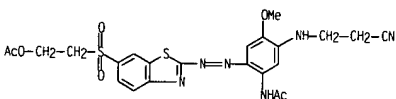
RN 443917-21-3 CAPLUS

CN Propanenitrile, 3-[[4-[[6-[[2-(acetyloxy)ethyl]sulfonyl]-2-benzothiazolyl]azo]-2-methoxy-5-methylphenyl]amino]- (9CI) (CA INDEX NAME)



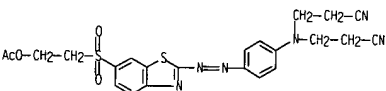
RN 443917-22-4 CAPLUS

CN Acetamide, N-[2-[[6-[[2-(acetyloxy)ethyl]sulfonyl]-2-benzothiazolyl]azo]-5-[(2-cyanoethyl)amino]-4-methoxyphenyl]- (9CI) (CA INDEX NAME)



RN 443917-23-5 CAPLUS

CN Propanenitrile, 3,3'-[[4-[[6-[[2-(acetyloxy)ethyl]sulfonyl]-2-benzothiazolyl]azo]phenyl]imino]bis- (9CI) (CA INDEX NAME)

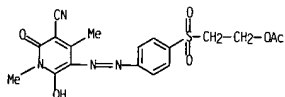


L5 ANSWER 1 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(yellow dye; prodn. of disperse-reactive azo dyes contg. acetoxyethylsulfonyl or vinylsulfonyl groups)

RN 443917-16-6 CAPLUS

CN 3-Pyridinecarbonitrile, 5-[[4-[[2-(acetyloxy)ethyl]sulfonyl]phenyl]azo]-1,2-dihydro-6-hydroxy-1,4-dimethyl-2-oxo- (9CI) (CA INDEX NAME)

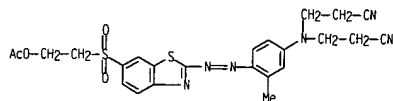


REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 1 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

RN 443917-24-6 CAPLUS

CN Propanenitrile, 3,3'-[[4-[[6-[[2-(acetyloxy)ethyl]sulfonyl]-2-benzothiazolyl]azo]-3-methylphenyl]imino]bis- (9CI) (CA INDEX NAME)

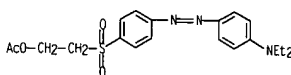


IT 443917-09-7P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(orange dye; prodn. of disperse-reactive azo dyes contg. acetoxyethylsulfonyl or vinylsulfonyl groups)

RN 443917-09-7 CAPLUS

CN Ethanol, 2-[[4-[[4-(diethylamino)phenyl]azo]phenyl]sulfonyl]-, acetate (ester) (9CI) (CA INDEX NAME)

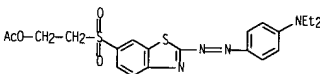


IT 443917-17-7P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(violet dye; prodn. of disperse-reactive azo dyes contg. acetoxyethylsulfonyl or vinylsulfonyl groups)

RN 443917-17-7 CAPLUS

CN Ethanol, 2-[[2-[[4-(diethylamino)phenyl]azo]-6-benzothiazolyl]sulfonyl]-, acetate (ester) (9CI) (CA INDEX NAME)



IT 443917-16-6P

L5 ANSWER 2 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:106972 CAPLUS

DOCUMENT NUMBER: 132:167671

TITLE: Reactive dye compositions for cellulosic fibers and applications thereof

INVENTOR(S): Araki, Satoshi; Washimi, Takeshi; Katsuta, Nobuyuki

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 62 pp.

CODEN: JKKXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000044830	A2	20000215	JP 1998-350268	19981209
PRIORITY APPLN. INFO.:			JP 1998-141546	19980522
OTHER SOURCE(S):			MARPAT 132:167671	
GRAPHIC IMAGE:				

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

ABSTRACT:

Dye compns. contain .gtoreq.2 dyes selected from yellow dyes, red dyes, blue dyes, and dyes such as C.I. Reactive Yellow 161, etc. Thus, a cotton knitting fabric was dyed evenly with a green compn. contg. I 2.0, II (R = Q) 1.5, and III (R = CH2CH2OH) 1.5 parts and had good fastness to light, Cl, and laundering.

IT 146548-74-5 146632-11-3

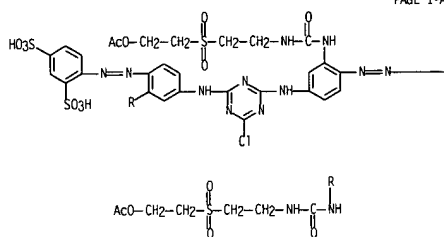
RL: TEM (Technical or engineered material use); USES (Uses)
(reactive dye compns. for cellulosic fibers)

RN 146548-74-5 CAPLUS

CN 1,3-Benzenedisulfonic acid, 4,4'-[[6-chloro-1,3,5-triazine-2,4-diyl]bis[imino[2-[[[2-[[2-(acetyloxy)ethyl]sulfonyl]ethyl]amino]carbonyl]amino]-4,1-phenylene]azo]]bis- (9CI) (CA INDEX NAME)

L5 ANSWER 2 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

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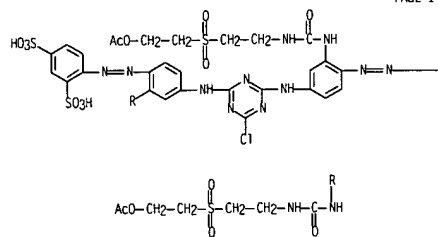
PAGE 1-B



RN 146632-11-3 CAPLUS
 CN 1,3-Benzenedisulfonic acid, 4,4'-[[6-chloro-1,3,5-triazine-2,4-diyl]bis[imino[2-[[[2-[[2-(acetoxymethyl)sulfonyl]ethyl]amino]carbonyl]amino]-4,1-phenylene]azo]]bis-, potassium sodium salt (9C1) (CA INDEX NAME)

L5 ANSWER 2 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

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PAGE 1-B

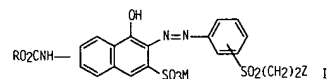


●x K ●x Na

L5 ANSWER 3 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:626282 CAPLUS
 DOCUMENT NUMBER: 131:258911
 TITLE: Reactive orange azo dyes containing vinyl sulfone groups and their production
 INVENTOR(S): Oh, Sea Wha; Kang, Myeong Nyee; Kim, Tae Kyung
 PATENT ASSIGNEE(S): Korea Research Institute of Chemical Technology, S. Korea
 SOURCE: PCT Int. Appl., 16 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9948985	A1	19990930	WO 1999-KR142	19990326
W: CN, IN, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1066348	A1	20010110	EP 1999-909382	19990326
EP 1066348	B1	20030102		
R: CH, DE, GB, LI				
JP 2002507652	T2	20020312	JP 2000-537950	19990326
PRIORITY APPLN. INFO.:				
KR 1998-10607 A 19980326				
WO 1999-KR142 W 19990326				
OTHER SOURCE(S): MARPAT 131:258911				
GRAPHIC IMAGE:				



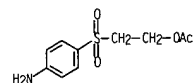
ABSTRACT:
 The present invention relates to reactive orange dyes contg. vinyl sulfone groups and more particularly, to dyes which have 6(7)-(alkoxycarbonylamino)-4-hydroxy-2-naphthalenesulfonic acid as a chromophore and an aminophenyl .beta.-substituted Et sulfone deriv. as an azo coupler. The dyes (I: M = alk. metal; R = Cl-4-alkyl; Z = OSO3M, acetoxy) provide excellent fastness to light, washing, perspiration, and chlorine as well as better dyeing yield than other monofunctional reactive dye. Thus, 6-amino-4-hydroxy-2-naphthalenesulfonic acid was neutralized with LiOH and condensed with Et chloroformate to give a coupling component to which was then added diazotized 4-aminophenyl .beta.-Et sulfone to provide an orange dye.

IT 73567-87-0, 2-Acetoxyethyl 4-aminophenyl sulfone

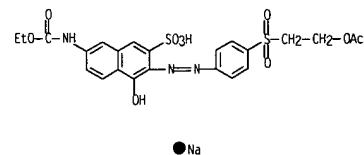
L5 ANSWER 3 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

RL: RCT (Reactant); RACT (Reactant or reagent)
 (diazo component; in prodn. of reactive orange azo dyes contg. vinyl sulfone groups)

RN 73567-87-0 CAPLUS
 CN Ethanol, 2-[[4-aminophenyl]sulfonyl]-, acetate (ester) (9C1) (CA INDEX NAME)



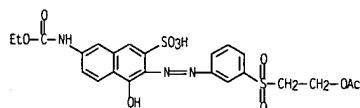
IT 244757-83-3P 245037-56-3P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (dye; prodn. of reactive orange azo dyes contg. vinyl sulfone groups)
 RN 244757-83-3 CAPLUS
 CN 2-Naphthalenesulfonic acid, 3-[[4-[[2-(acetoxymethyl)sulfonyl]phenyl]azo]-7-[(ethoxycarbonyl)amino]-4-hydroxy-, monosodium salt (9C1) (CA INDEX NAME)



● Na

RN 245037-56-3 CAPLUS
 CN 2-Naphthalenesulfonic acid, 3-[[3-[[2-(acetoxymethyl)sulfonyl]phenyl]azo]-7-[(ethoxycarbonyl)amino]-4-hydroxy-, monosodium salt (9C1) (CA INDEX NAME)

L5 ANSWER 3 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



● Na

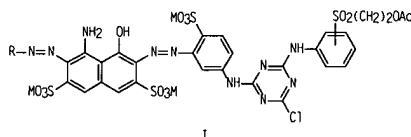
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:626281 CAPLUS
 DOCUMENT NUMBER: 131:258910
 TITLE: Reactive blue dyes containing monochlorotriazine and acetoxyethyl sulfone groups and their production
 INVENTOR(S): Oh, Sea Wha; Kang, Myeong Nyeo; Kim, Tae Kyung
 PATENT ASSIGNEE(S): Korea Research Institute of Chemical Technology, S. Korea
 SOURCE: PCT Int. Appl., 21 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9948984	A1	19990930	WO 1999-KR143	19990326
W: CN, IN, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1071727	A1	20010131	EP 1999-909383	19990326
EP 1071727	B1	20020612		
R: CH, DE, GB, LI				
JP 2002507651	T2	20020312	JP 2000-537949	19990326
US 6307033	B1	20011023	US 2000-646936	20001120
PRIORITY APPLN. INFO.:			KR 1998-10609	A 19980326
			WO 1999-KR143	W 19990326

GRAPHIC IMAGE:



I

ABSTRACT:

Bifunctional blue reactive dyes and more particularly, dyes with monochlorotriazine and 2-acetoxyethyl sulfone reactive groups (I; R = C6H4-p-SO3M. M = alk. metal atom) are prepd., which provide an excellent

L5 ANSWER 4 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

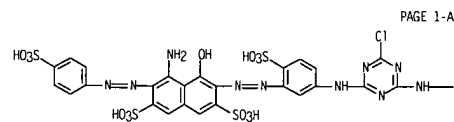
combination of properties in that (1) the introduction of aminophenyl .beta.-acetoxyethyl sulfone group to the dye may minimize the loss of dye, since its low soly. in water lessens the amt. of the remaining soln. during filtration, (2) an easier salting-out process requires a smaller amt. of salt during the process so that the costs for the treatment of waste water may be significantly reduced, and (3) a better dyeing yield with enhanced substantivity and better brightness in color. Thus, p-sulfanilic acid, 4-amino-2-naphthalenedisulfonic acid was prepd. and coupled with the diazotized 1:1 adduct of m-phenylenediamine-4-sulfonic acid and cyanuric chloride and the resulting dichlorotriazinyl disazo compd. was condensed with 2-acetoxyethyl 4-aminophenyl sulfone to provide a blue reactive dye.

IT 244773-46-4P 244773-47-5P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (dye; prodn. of reactive blue disazo dyes contg. chlorotriazine and acetoxyethyl sulfone groups)

RN 244773-46-4 CAPLUS

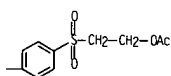
CN 2,7-Naphthalenedisulfonic acid, 3-[[[5-[[[4-[[[2-(acetoxy)ethyl]sulfonyl]phenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]-2-sulphonyl]azo]-5-amino-4-hydroxy-6-[(4-sulphonyl)azo]-, tetrasodium salt (9C1) (CA INDEX NAME)



PAGE 1-A

● Na

PAGE 1-B

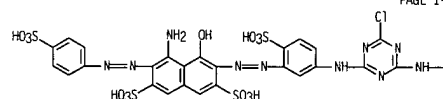


RN 244773-47-5 CAPLUS

CN 2,7-Naphthalenedisulfonic acid, 3-[[[5-[[[4-[[[2-(acetoxy)ethyl]sulfonyl]phenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]-2-sulphonyl]azo]-5-amino-4-hydroxy-6-[(4-sulphonyl)azo]-, tetrasodium salt (9C1) (CA INDEX NAME)

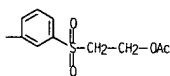
L5 ANSWER 4 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

PAGE 1-A



● Na

PAGE 1-B

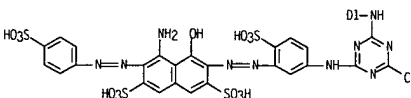
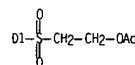


IT 245049-58-SDP, alk. metal salts

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (dyes; prodn. of reactive blue disazo dyes contg. chlorotriazine and acetoxyethyl sulfone groups)

RN 245049-58-5 CAPLUS

CN 2,7-Naphthalenedisulfonic acid, 3-[[[5-[[[4-[[[2-(acetoxy)ethyl]sulfonyl]phenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]-2-sulphonyl]azo]-5-amino-4-hydroxy-6-[(4-sulphonyl)azo]-, tetrasodium salt (9C1) (CA INDEX NAME)



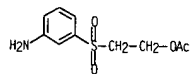
L5 ANSWER 4 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

IT 3753-07-9 73567-87-0 245049-59-6

RL: RCT (Reactant); RACT (Reactant or reagent)
 (starting material; prodn. of reactive blue disazo dyes contg.
 chlorotriazine and acetoxyethyl sulfone groups)

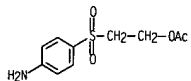
RN 3753-07-9 CAPLUS

CN Ethanol, 2-[(3-aminophenyl)sulfonyl]-, acetate (ester) (9CI) (CA INDEX
 NAME)



RN 73567-87-0 CAPLUS

CN Ethanol, 2-[(4-aminophenyl)sulfonyl]-, acetate (ester) (9CI) (CA INDEX
 NAME)

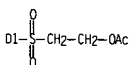


RN 245049-59-6 CAPLUS

CN Ethanol, 2-[(aminophenyl)sulfonyl]-, acetate (ester) (9CI) (CA INDEX
 NAME)



D1-NH2



L5 ANSWER 5 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:626280 CAPLUS

DOCUMENT NUMBER: 131:258909

TITLE: Reactive red dyes containing monochlorotriazine and
 acetoxyethyl sulfone groups and their production
 Oh, Sea Wha; Kang, Myeong Nyeo; Shin, Seung Rim; Kim,
 Tae Kyung; Song, Mi Kyoung

PATENT ASSIGNEE(S): Korea Research Institute of Chemical Technology, S.
 Korea

SOURCE: PCT Int. Appl., 20 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

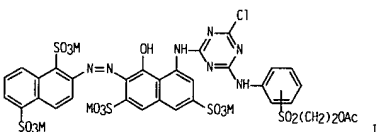
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9948983	A1	19990930	WO 1999-KR145	19990326
W: CN, IN, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1066344	A1	20010110	EP 1999-909385	19990326
EP 1066344	B1	20020724		
R: CH, DE, GB, LI				
JP 2002507650	T2	20020312	JP 2000-537948	19990326
US 6310187	B1	20011030	US 2001-646868	20010409
PRIORITY APPLN. INFO.:			KR 1998-10608	A 19980326
			WO 1999-KR145	W 19990326

OTHER SOURCE(S): MARPAT 131:258909

GRAPHIC IMAGE:



L5 ANSWER 4 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

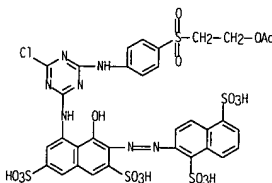
of the remaining soln. during filtration, (2) an easier salting-out process
 requires a smaller amt. of salt during the process so that the costs for the
 treatment of wastewater may be significantly reduced, and (3) a better dyeing
 yield with enhanced substantivity and better brightness in color. In an
 example, a 1:1 condensate of 1-naphthol-8-amino-3,6-disulfonic acid was used as
 a coupling component with diazotized 2-amino-1,5-naphthalenedisulfonic acid
 diazo component and the resulting dichlorotriazine azo dye was condensed with
 2-acetoxyethyl -4-aminophenyl sulfone to provide a red reactive dye.

IT 245039-66-1P 245039-67-2P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (dye; prodn. of red reactive azo dyes contg. chlorotriazine and
 acetoxyethyl sulfone groups)

RN 245039-66-1 CAPLUS

CN 1,5-Naphthalenedisulfonic acid, 2-[[[8-[[[4-[[[2-
 (acetyloxy)ethyl]sulfonyl]phenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]-
 1-hydroxy-3,6-disulfo-2-naphthalenyl]azo]-, tetrasodium salt (9CI) (CA
 INDEX NAME)



Na

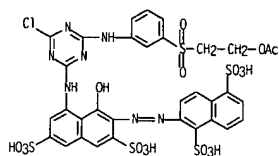
RN 245039-67-2 CAPLUS

CN 1,5-Naphthalenedisulfonic acid, 2-[[[8-[[[4-[[[2-
 (acetyloxy)ethyl]sulfonyl]phenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]-
 1-hydroxy-3,6-disulfo-2-naphthalenyl]azo]-, tetrasodium salt (9CI) (CA
 INDEX NAME)

ABSTRACT:

Bifunctional red reactive dyes and more particularly, dyes with
 monochlorotriazine and acetoxyethyl sulfone reactive groups (I; M = alk. metal
 atom) are obtained, which provide excellent combination of properties in that
 (1) the introduction of an aminophenyl .beta.-acetoxyethyl sulfone group to the
 dye may minimize the loss of dye, since its low soly. in water lessens the amt.

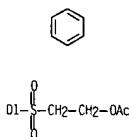
L5 ANSWER 5 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



Na

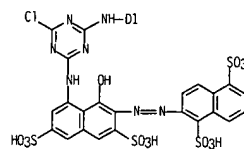
IT 245071-82-3DP, alk. metal salts
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (dyes; prodn. of red reactive azo dyes contg. chlorotriazine and acetoxyethyl sulfone groups)
 RN 245071-82-3 CAPLUS
 CN 1.5-Naphthalenedisulfonic acid, 2-[[[8-[[[4-[[[2-(acetyloxyethyl)sulfonyl]phenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]-1-hydroxy-3,6-disulfo-2-naphthalenyl]azo]- (9C1) (CA INDEX NAME)

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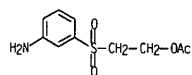


L5 ANSWER 5 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

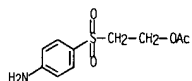
PAGE 2-A



IT 3753-07-9, 2-Acetoxyethyl 3-aminophenyl sulfone 73567-87-0
 2-Acetoxyethyl 4-aminophenyl sulfone 245049-59-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (starting material; prodn. of red reactive azo dyes contg. chlorotriazine and acetoxyethyl sulfone groups)
 RN 3753-07-9 CAPLUS
 CN Ethanol, 2-[(3-aminophenyl)sulfonyl]-, acetate (ester) (9C1) (CA INDEX NAME)

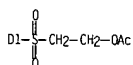


RN 73567-87-0 CAPLUS
 CN Ethanol, 2-[(4-aminophenyl)sulfonyl]-, acetate (ester) (9C1) (CA INDEX NAME)



RN 245049-59-6 CAPLUS
 CN Ethanol, 2-[(aminophenyl)sulfonyl]-, acetate (ester) (9C1) (CA INDEX NAME)

L5 ANSWER 5 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

D1-NH₂

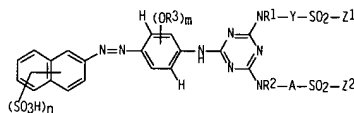
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 92 CAPLUS COPYRIGHT 2003 ACS

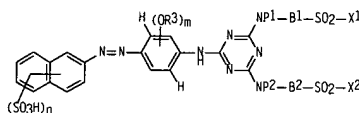
ACCESSION NUMBER: 1999-498355 CAPLUS
 DOCUMENT NUMBER: 131:145685
 TITLE: Monoazo reactive dye blends for dyeing of cellulosic fabric
 INVENTOR(S): Inoue, Jun; Mikami, Satoshi; Yamate, Shinichi
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11217515	A2	19990810	JP 1998-23415	19980204
PRIORITY APPLN. INFO.:			JP 1998-23415	19980204
OTHER SOURCE(S):		MARPAT 131:145685		

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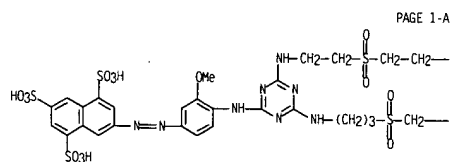


II

ABSTRACT:
 Title dye blends comprise azo compds. I and II [R₁, R₂, P₁, P₂ = H, (substituted) lower alkyl; R₃ = (substituted) lower alkyl; Y = (substituted) phenylene; A = (substituted) phenylene, (substituted, heteroatom-contg.) C2-6 alkylene; n = 2, 3; m = 1, 2; Z₁, Z₂, X₁, X₂ = CH₂CH₂, CH₂CH₂, Z = leaving group upon treating with base; B₁, B₂ = (substituted, heteroatom-contg.) C2-6 alkylene].

IT 236125-55-6 236125-60-3 236125-67-0
 RL: TEM (Technical or engineered material use); USES (Uses)

L5 ANSWER 6 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 (monoazo reactive dye blends for dyeing of cellulosic fabric)
 RN 236125-55-6 CAPLUS
 CN 1.3.5-Naphthalenetrisulfonic acid, 7-[[4-[[[2-[[2-(acetyloxy)ethyl]sulfonyl]ethyl]amino]-6-[[3-[[2-(sulfoxy)ethyl]sulfonyl]propyl]amino]-1.3.5-triazin-2-yl]amino]-3-methoxyphenyl]azo]- (9CI) (CA INDEX NAME)



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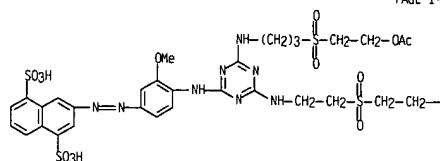
—OAc

—CH₂—OSO₃H

RN 236125-60-3 CAPLUS
 CN 1.5-Naphthalenedisulfonic acid, 3-[[4-[[[2-[[2-(acetyloxy)ethyl]sulfonyl]ethyl]amino]-6-[[3-[[2-(acetyloxy)ethyl]sulfonyl]propyl]amino]-1.3.5-triazin-2-yl]amino]-3-methoxyphenyl]azo]- (9CI) (CA INDEX NAME)

L5 ANSWER 6 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

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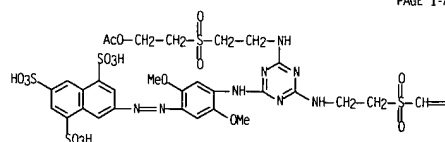


PAGE 1-B

—OAc

RN 236125-67-0 CAPLUS
 CN 1.3.5-Naphthalenetrisulfonic acid, 7-[[4-[[[2-[[2-(acetyloxy)ethyl]sulfonyl]ethyl]amino]-6-[[2-(ethenylsulfonyl)ethyl]amino]-1.3.5-triazin-2-yl]amino]-2.5-dimethoxyphenyl]azo]- (9CI) (CA INDEX NAME)

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L5 ANSWER 6 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

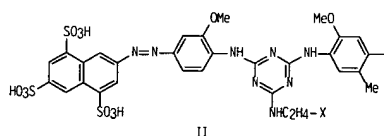
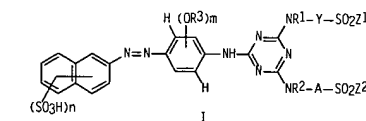
PAGE 1-B

=CH₂

L5 ANSWER 7 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:409306 CAPLUS
 DOCUMENT NUMBER: 131:74975
 TITLE: Reactive azo dye compositions and their uses in dyeing or printing of textiles
 INVENTOR(S): Sumi, Takeshi; Yamate, Shinichi; Mikami, Satoshi
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

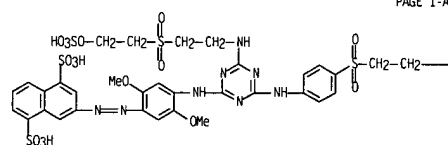
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11172140	A2	19990629	JP 1997-344731	19971215
PRIORITY APPLN. INFO.:			JP 1997-344731	19971215
OTHER SOURCE(S):		MARPAT 131:74975		
GRAPHIC IMAGE:				



ABSTRACT:
 Title compns. contain alkylnaphthalenesulfonic acid-HCHO copolymer and monoazo dyes I [R1, R2 = H, (substituted) low alkyl; R3 = (substituted) low alkyl; Y = (substituted)phenylene; A = (substituted)phenylene or (substituted) C2-6 alkylene; n = 2-3; m = 1-2; Z1, Z2 = CH:CH2, CH2CH2Z with Z = alkali removable groups] or their salts. An aq. compn. contg. water glass, NaOH soln., HCHO-methylnaphthalenesulfonic acid copolymer Na salt, and II (X = SO2C2H4OSO3H) was used to dye a cotton cloth to form a dyed cloth with nonyellowing ability after washing with cold and hot water and soaping with

L5 ANSWER 7 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
boiling detergent.

IT 228393-94-0
RL: TEM (Technical or engineered material use): USES (Uses)
(alkylnaphthalenesulfonate-HCHO resin-contg. monoazo dye compns. for
dyeing or printing of textiles)
RN 228393-94-0 CAPLUS
CN 1.5-Naphthalenedisulfonic acid, 3-[[[4-[[[4-[[[2-
(acetoxy)ethyl]sulfonyl]phenyl]amino]-6-[[[2-[[2-
(sulfoxy)ethyl]sulfonyl]ethyl]amino]-1,3,5-triazin-2-yl]amino]-2,5-
dimethoxyphenyl]azo]- (9CI) (CA INDEX NAME)



PAGE 1-B

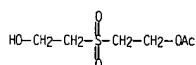
—OAc

L5 ANSWER 8 OF 92 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:59331 CAPLUS
DOCUMENT NUMBER: 127:235679
TITLE: Preparation of sulfones as intermediates for
bifunctional fiber-reactive dyes
INVENTOR(S): Hams, Wolfgang; Hendricks, Udo-Winfried; Herd,
Karl-Josef; Kunde, Klaus
PATENT ASSIGNEE(S): Bayer A.-G., Germany
SOURCE: U.S., 9 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5663442	A	19970902	US 1995-456224	19950531
US 5675040	A	19971007	US 1996-718168	19960919
PRIORITY APPLN. INFO.:		US 1995-456224 19950531		
OTHER SOURCE(S):		CASREACT 127:235679; MARPAT 127:235679		

ABSTRACT:
Sulfones QNH(CH₂CH₂O)m(CH₂)nSO₂Z [Q = (un)substituted Ph or naphthyl; Z = CH₂CH₂ or precursor; m = 0, 1; n = 2-4] are prepd. by reaction of QNH₂ with X(CH₂CH₂O)m(CH₂)nSO₂CH₂CH₂OH (X = Cl, Br, O₂CR; R = Me, Et, Pr, Bu, Ph), optionally followed by conversion of the terminal CH₂CH₂OH group. Thus, reaction of vinyl acetate with HSCH₂CH₂OH in the presence of AIBN gave AcOCH₂CH₂SCH₂CH₂OH, which was oxidized to the sulfone with H₂O₂ and treated with PhNH₂ to produce PhNHCH₂CH₂SO₂CH₂CH₂OH (I) in 61% overall yield based on vinyl acetate. Condensation of I with cyanuric fluoride and condensation of the product with an amino-substituted formazan Cu complex gave a reactive blue dye for cotton.

IT 169283-84-5P, 2-Acetoxyethyl 2-hydroxyethyl sulfone
RL: IMF (Industrial manufacture): RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. of sulfones as intermediates for bifunctional fiber-reactive
dyes)
RN 169283-84-5 CAPLUS
CN Ethanol, 2-[[[2-(acetoxy)ethyl]sulfonyl]- (9CI) (CA INDEX NAME)

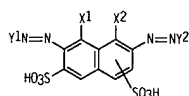


L5 ANSWER 8 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

L5 ANSWER 9 OF 92 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:513668 CAPLUS
DOCUMENT NUMBER: 127:163105
TITLE: Acid disazo dyes, their sulfonamide intermediates, and
their use
INVENTOR(S): Lamm, Gunther; Reichelt, Helmut; Wagenblast, Gerhard
PATENT ASSIGNEE(S): BASF A.-G., Germany; Lamm, Gunther; Reichelt, Helmut;
Wagenblast, Gerhard
SOURCE: PCT Int. Appl., 146 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9727248	A2	19970731	WO 1997-EP174	19970116
WO 9727248	A3	19970828		
W: AU, BG, BR, CA, CN, CZ, GE, HU, IL, JP, KR, LV, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TR, UA, US, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9714427	A1	19970820	AU 1997-14427	19970116
EP 877775	A2	19981118	EP 1997-901041	19970116
R: DE, FR, GB, IT				
JP 2000503338	T2	20000321	JP 1997-526488	19970116
US 6130320	A	20001010	US 1998-101777	19980722
PRIORITY APPLN. INFO.:		DE 1996-19602542 A 19960125		
		WO 1997-EP174 W 19970116		

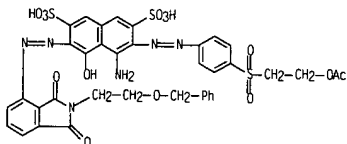
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ABSTRACT:
Disazo dyes I (X1 = hydroxy and X2 = amino or vice versa; Y1, Y2 = residue of a diazo component from the aniline series) are disclosed in which one diazo component may contain a sulfonamide group. I are esp. suitable for dyeing of wool at pH 3-7. Thus, 4-[[N-(4-aminophenyl)sulfonyl]-N-ethylamino]benzenesulfonic acid, f.w.darw. 4-amino-5-hydroxy-3-(4-nitrophenylazo)-2,7-naphthalenedisulfonic acid (λ_{max} 600 nm) was prepd. and applied to wool to provide lightfast navy blue shades.

IT 193474-34-9P

L5 ANSWER 9 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (dye; acid disazo dye prepn. for natural and synthetic polyamides and leather)
 RN 193474-34-9 CAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 3-[[4-[[2-(acetyloxy)ethyl]sulfonyl]phenyl]azo]-4-amino-6-[[2,3-dihydro-1,3-dioxo-2-[2-(phenylmethoxy)ethyl]-1H-isoindol-4-yl]azo]-5-hydroxy- (9C1) (CA INDEX NAME)



L5 ANSWER 10 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1996:13344 CAPLUS
 DOCUMENT NUMBER: 124:148707
 TITLE: Water-soluble dye mixtures and dyeing of cellulosic fiber materials and their printing
 INVENTOR(S): Hibara, Toshio; Takahashi, Yosuke
 PATENT ASSIGNEE(S): Hoechst Mitsubishi Kasei, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07247440	A2	19950926	JP 1994-155303	19940614
JP 3115187	B2	20001204		

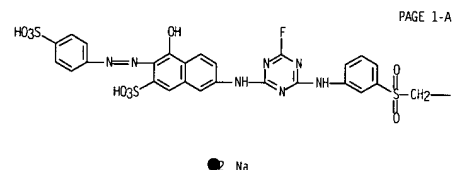
 PRIORITY APPLN. INFO.: JP 1993-265921 A 19930929
 JP 1994-22176 A 19940121
 OTHER SOURCE(S): MARPAT 124:148707
 GRAPHIC IMAGE:

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

ABSTRACT:
 The dye mixts. contain 55-95% I and/or II [R = H, lower alkyl; X = CH₂CH₂, C₂H₄X; X1 = group can be removed by alkali; Y = (lower alkyl) or alkoxy-substituted phenylene; Z = Cl, F; n = 0, 1, 2; and 5-45% III. Thus, a mercerized cotton knit was dyed by a mixt. of 75 parts I (X = C₂H₄OSO₃Na) and 25 parts IV resulting in good fastness.

IT 172803-75-7
 RL: TEM (Technical or engineered material use); USES (Uses)
 (dyeing and printing of cellulosic fiber materials by using azo dyes)
 RN 172803-75-7 CAPLUS
 CN 2-Naphthalenesulfonic acid, 7-[[4-[[[2-(acetyloxy)ethyl]sulfonyl]phenyl]amino]-6-fluoro-1,3,5-triazin-2-yl]amino]-4-hydroxy-3-[[4-(sulfonylphenyl)azo]-, disodium salt (9C1) (CA INDEX NAME)

L5 ANSWER 10 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



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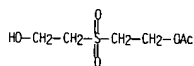
—CH₂—OAc

L5 ANSWER 11 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1995:874711 CAPLUS
 DOCUMENT NUMBER: 123:259760
 TITLE: Sulfones and their preparation for reactive dyes
 INVENTOR(S): Harms, Wolfgang; Hendricks, Udo-Winfried; Herd, Karl-Josef; Kunde, Klaus
 PATENT ASSIGNEE(S): Bayer A.-G., Germany
 SOURCE: Ger. Offen., 14 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4342615	A1	19950622	DE 1993-4342615	19931214
EP 741130	A1	19961106	EP 1995-106730	19950504
EP 741130	B1	19991201		
R: CH, DE, FR, GB, LI				
JP 0831016	A2	19961126	JP 1995-141342	19950517
PRIORITY APPLN. INFO.:			DE 1993-4342615	19931214
OTHER SOURCE(S):			MARPAT 123:259760	

 ABSTRACT:
 The vinyl sulfones A(SO₃H)pNH(CH₂CH₂)_m(CH₂)_nSO₂V₁ (A = optionally substituted benzene or naphthalene; V₁ = vinyl or vinyl precursor; m = 0-1, n = 2-4; p = 0-2) are obtained from the appropriate aniline or naphthylamine deriv. and the desired activated sulfone precursor. The vinyl sulfones are useful in the prodn. of bifunctional reactive dyes. Thus, vinyl acetate was treated with 2-mercaptoethanol to give a difunctional sulfide, which was oxidized to the sulfone. Condensation with aniline provided hydroxyethylaminoethyl aniline which was then sulfated, resulting in a sulfatoethylsulfonyl product which could then be condensed with cyanuric fluoride and a Cu formazan to give a reactive dye.

IT 169283-84-5, 2-(2-Hydroxyethylsulfonyl)ethyl acetate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (intermediate; sulfones and their prepn. for reactive dyes)
 RN 169283-84-5 CAPLUS
 CN Ethanol, 2-[[2-(acetyloxy)ethyl]sulfonyl]- (9C1) (CA INDEX NAME)



L5 ANSWER 12 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1995:605452 CAPLUS

DOCUMENT NUMBER: 123:115323

TITLE: Phenylazo- or naphthylazobenzenes having thioether groups and production of reactive dyes from them.
Wiesenfeldt, Matthias; Siegel, Bernd Dr; Patsch, Manfred

INVENTOR(S): BASF A.-G., Germany

SOURCE: Eur. Pat. Appl., 20 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

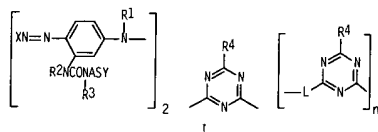
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 630947	A1	19941228	EP 1994-108933	19940610
R: CH, DE, FR, GB, IT, LI				
DE 4320661	A1	19950105	DE 1993-4320661	19930622
US 5428140	A	19950627	US 1994-254764	19940606
JP 07018196	A2	19950120	JP 1994-139079	19940621
US 5449762	A	19950912	US 1995-382180	19950201
PRIORITY APPLN. INFO.:		DE 1993-4320661	19930622	
		US 1994-254764	19940606	

OTHER SOURCE(S): MARPAT 123:115323

GRAPHIC IMAGE:



ABSTRACT:

I (A = optionally substituted alkylene; L = bridging group; R1, R2, R3 = H, Cl-4-alkyl; Ph; R4 = F, Cl, Br, alkylsulfonyl, PhSO2, 3-carboxypyridinio betaine; X = arom. group; Y = vinyl or group convertible thereto; n = 0-1) are obtained and the thioether moiety is oxidized with H2O2 to a sulfone to provide reactive dyes. Thus, 2-aminoethyl 2-hydroxyethyl sulfide was treated with m-nitrophenylurea and then Ac2O to give m-O2NC6H4NHCONHCH2CH2SCH2CH2OAc, the nitro group of which was reduced to NH2. This amine was coupled with

L5 ANSWER 12 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

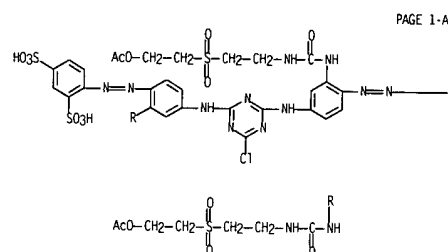
diazotized aniline-2,4-disulfonic acid and the product was condensed with cyanuric chloride to provide an azo compd. which was oxidized with H2O2 to give a reactive dye (λ_{max} 378 nm), fast yellow on cotton.

IT 146548-74-5P

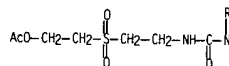
RL: IMF (Industrial manufacture); PREP (Preparation)
(prodn. of reactive azo dyes)

RN 146548-74-5 CAPLUS

CN 1,3-Benzenedisulfonic acid, 4,4'-[[6-chloro-1,3,5-triazine-2,4-diyl]bis[imino[2-[[[2-(acetyloxy)ethyl]sulfonyl]ethyl]amino]carbonyl]amino]-4,1-phenylene]azo]]bis- (9CI) (CA INDEX NAME)



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L5 ANSWER 13 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1995:559729 CAPLUS

DOCUMENT NUMBER: 122:293414

TITLE: Vinylsulfonyl reactive dyes based on phthalocyanine and/or triphenodioxazine, and their use

INVENTOR(S): Dornhagen, Juergen; Patsch, Manfred

PATENT ASSIGNEE(S): BASF A.-G., Germany

SOURCE: Ger. Offen., 12 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

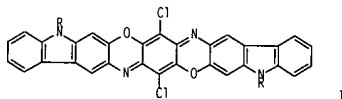
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4319674	A1	19941215	DE 1993-4319674	19930614
PRIORITY APPLN. INFO.:				
OTHER SOURCE(S):		MARPAT 122:293414		

GRAPHIC IMAGE:



I

ABSTRACT:

The dyes are based on phthalocyanine and/or I (R = Cl-4-alkyl) and also contain sulfonate and aminosulfonyl moieties in addn. to vinylsulfonyl groups or groups convertible thereto. The dyes may be obtained simultaneously and provide fast shades on OH- or N-contg. substrates. Thus, a mixt. of Cu phthalocyanine and C.I. Pigment Violet 23 was chlorosulfonated and then treated with 4-(2-sulfatoethylsulfonyl)aniline to give a dye compn.

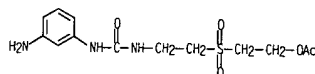
IT 146548-80-3DP, reaction products with chlorosulfonated phthalocyanines and triphenodioxazines

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prepn. of reactive dyes)

RN 146548-80-3 CAPLUS

CN Urea, N-[2-[[2-(acetyloxy)ethyl]sulfonyl]ethyl]-N'-(3-aminophenyl)- (9CI)
(CA INDEX NAME)

L5 ANSWER 13 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

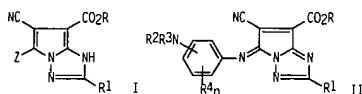
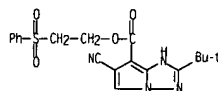


L5 ANSWER 14 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1995:259845 CAPLUS
 DOCUMENT NUMBER: 122:33541
 TITLE: 1H-Pyrrolo[1,2-b][1,2,4]triazole derivatives with low secondary absorption and high solubility in organic solvents
 INVENTOR(S): Ito, Takayuki; Shimada, Yasuhiro; Matsuo, Mitsuyuki; Suzuki, Makoto
 PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho. 22 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06172357	A2	19940621	JP 1992-324119	19921203
JP 3020188	B2	20000315		

PRIORITY APPLN. INFO.: JP 1992-324119 19921203
 OTHER SOURCE(S): MARPAT 122:33541
 GRAPHIC IMAGE:

L5 ANSWER 14 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 dimethylethyl)-, 2-(phenylsulfonyl)ethyl ester (9CI) (CA INDEX NAME)



ABSTRACT:
 The title compds. useful as physiol. active substance intermediates, dyes, etc. have the general formula I or II (R = C4-36 alkyl, C8-40 aryl; Z = H, halogen, arylthio, heterocyclic thio, arylsulfinyl, nitro; R1 = alkyl; R2, R3 = H, alkyl; R4 = halogen, alkyl; n = 0-4). I [Z = H; R = octyl; R1 = 1-(2,4-di-tert-amylphenoxy)propyl] sol. in EtOAc was prepd. starting from 2,4-dimethyl-6-tert-butyl-1,3,5-triazole-7-carboxylic acid, 6-cyano-2-(1,1-dimethylethyl)-, 2-(phenylsulfonyl)ethyl ester (9CI) (CA INDEX NAME) in many steps.

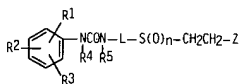
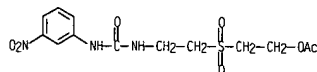
IT 159826-67-2P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (pyrrolo-triazole derivs. for dyes and precursors with low secondary absorption and high soly. in org. solvents)
 RN 159826-67-2 CAPLUS
 CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-(1,1-

L5 ANSWER 15 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1995:42915 CAPLUS
 DOCUMENT NUMBER: 122:136105
 TITLE: Preparation of aromatic ureas containing a thioether or a sulfonyl group
 INVENTOR(S): Siegel, Bernd; Patsch, Manfred
 PATENT ASSIGNEE(S): BASF A.-G., Germany
 SOURCE: Eur. Pat. Appl., 11 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 590555	A1	19940406	EP 1993-115520	19930925
EP 590555	B1	19960124		
R: BE, CH, DE, FR, GB, IT, LI				
DE 4233033	A1	19940407	DE 1992-4233033	19921001
JP 06211778	A2	19940802	JP 1993-242546	19930929
US 5380941	A	19950110	US 1993-130176	19931001

PRIORITY APPLN. INFO.: DE 1992-4233033 19921001
 OTHER SOURCE(S): MARPAT 122:136105
 GRAPHIC IMAGE:

L5 ANSWER 15 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



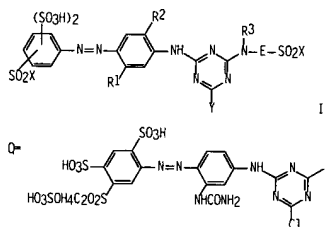
ABSTRACT:
 The ureas (I; R1, R2, R3 = H, alkyl, alkoxy, halogen, OH, SO3H, CO2H, CN, alkanoylamino, alkoxy-carbonylamino; R4, R5 = H, alkyl, Ph; L = optionally substituted alkylene; NSL = 1,4-piperazinediylethylene; Z = OH, alkali-cleavable group; n = 0 or 2; the arom. ring may be benzoannellated) are obtained by condensation of R1R2R3 C6H2N(R4)CONH2 with R5NHLSONC2H4Z at 80-180.degree. in an inert solvent. I are useful as intermediates for reactive dyes. Thus, 3-nitrophenylurea was refluxed with H2NC2H4SC2H4OH to give 3-(2-hydroxy-2-(3-nitrophenyl)urea)thioethanol, which could be oxidized to the corresponding sulfone.

IT 146548-79-OP
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of, as reactive dye intermediates)
 RN 146548-79-0 CAPLUS
 CN Urea, N-[2-[[2-(acetoxy)ethyl]sulfonyl]ethyl]-N'-(3-nitrophenyl)- (9CI)
 (CA INDEX NAME)

LS ANSWER 16 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1994:325760 CAPLUS
 DOCUMENT NUMBER: 120:325760
 TITLE: Water-soluble monoazo dyes with good leveling and
 buildup properties
 INVENTOR(S): Takahashi, Yosuke; Shimizu, Yukiharu; Hibara, Toshio;
 Himeno, Kyoshi
 PATENT ASSIGNEE(S): Hoechst Mitsubishi Kasei, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

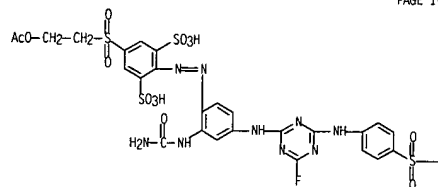
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06009893	A2	19940118	JP 1992-166163	19920624
JP 3126808	B2	20010122		

PRIORITY APPLN. INFO.: JP 1992-166163 19920624
 OTHER SOURCE(S): MARPAT 120:325760
 GRAPHIC IMAGE:



ABSTRACT:
 The title dyes, medium-yellow on cotton, have the free-acid form I (X = vinyl, CH2CH2W; W = alkali-removable group; Y = halogen, NR3ESO2X; E = (un)substituted phenylene, naphthylene; R1 = lower alkyl, ureido, NHCOT; T = lower alkyl; R2 = H, Cl-2 alkyl, alkoxy; R3 = H, Cl-2 alkyl). QC1 was condensed with 4-(2-sulfatoethylsulfonyl)aniline and salted with KCl to obtain p-QNHC6H4SO2CH2CH2SO3H (free-acid form).

LS ANSWER 16 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 IT 155585-75-4P 155585-76-5P
 RL: PREP (Preparation)
 (dye, yellow, manuf. of, with good leveling and buildup properties on cotton)
 RN 155585-75-4 CAPLUS
 CN 1,3-Benzenedisulfonic acid, 5-[[2-(acetyloxyethyl)sulfonyl]-2-[[2-[(aminocarbonyl)amino]-4-[[4-fluoro-6-[[4-[[2-(sulfoxyethyl)sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]phenyl]azo]- (9C1) (CA INDEX NAME)



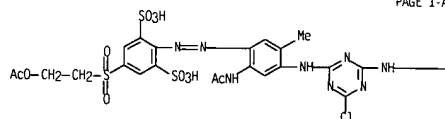
PAGE 1-A

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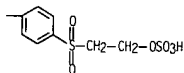
-CH2-CH2-OSO3H

RN 155585-76-5 CAPLUS
 CN 1,3-Benzenedisulfonic acid, 2-[[2-(acetyl)amino]-4-[[4-chloro-6-[[4-[[2-(sulfoxyethyl)sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-5-methylphenyl]azo]-5-[[2-(acetyloxyethyl)sulfonyl]- (9C1) (CA INDEX NAME)

LS ANSWER 16 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
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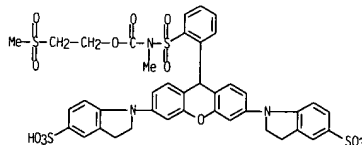


PAGE 1-B



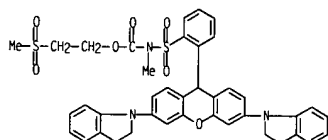
LS ANSWER 17 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1994:325758 CAPLUS
 DOCUMENT NUMBER: 120:325758
 TITLE: Unexpected regioselectivity in the sulfonation of
 leuco xanthene dyes
 AUTHOR(S): Carlier, Paul R.; Lockshin, Mary P.; Filosa, Michael
 P.
 CORPORATE SOURCE: Polaroid Corporation, Cambridge, MA, 02139, USA
 SOURCE: Journal of Organic Chemistry (1994), 59(11), 3232-6
 CODEN: JOCEAH; ISSN: 0022-3263
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 ABSTRACT:
 Base-bleachable bis-sulfonated indolinylxanthene dyes are useful for color correction in color instant integral film products. These compds. were prepd. by sulfonation of the leuco form of the dyes, yet the position of sulfonation was unknown. 2D-NMR spectroscopy and independent synthesis detd. that despite the availability of a no. of potentially reactive sites, sulfonation occurs exclusively on the 5'/5'' positions of the indolines. This regiochem. preference is proposed to be due to a combination of electronic, steric, and stereoelectronic effects.

IT 155110-43-3P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 155110-43-3 CAPLUS
 CN 1H-Indole-5-sulfonic acid, 1,1'-[9-[2-[[methyl]([2-(methylsulfonyl)ethoxy]carbonyl)amino]sulfonyl]phenyl]-9H-xanthene-3,6-diyl]bis[2,3-dihydro- (9C1) (CA INDEX NAME)



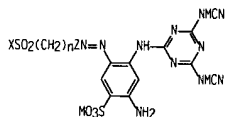
IT 77545-48-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (sulfonation of)
 RN 77545-48-3 CAPLUS
 CN Carbamic acid, [[2-[3,6-bis(2,3-dihydro-1H-indol-1-yl)-9H-xanthen-9-yl]phenyl]sulfonyl]methyl-, 2-(methylsulfonyl)ethyl ester (9C1) (CA INDEX NAME)

L5 ANSWER 17 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



L5 ANSWER 18 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1994:137093 CAPLUS
 DOCUMENT NUMBER: 120:137093
 TITLE: Water-soluble reactive azo dyes, their preparation and use
 INVENTOR(S): Dannheim, Joerg; Russ, Werner Hubert
 PATENT ASSIGNEE(S): Hoechst A.-G., Germany
 SOURCE: Ger. Offen., 9 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

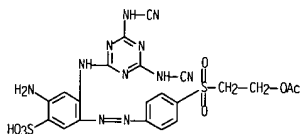
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4210568	A1	19931007	DE 1992-4210568	19920331
PRIORITY APPLN. INFO.:			DE 1992-4210568	19920331
OTHER SOURCE(S):			MARPAT 120:137093	
GRAPHIC IMAGE:				



ABSTRACT:
 I [M = H, alkali metal, alk. earth metal; X = vinyl, vinyl-forming group; Z = (un)substituted phenylene or naphthylene or benzothiazole-2,5-diyl; n = 0-2] are obtained by coupling of diazotized XS₂(CH₂)_nNH₂ with the appropriate coupling component. I are used for dyeing and printing of OH or CONH group-contg. fabrics in fast shades. Thus, cyanuric chloride was condensed with cyanamide and 2,4-(H₂N)2C₆H₃SO₃H, and the product was coupled with diazotized 4-HO₃SOCH₂CH₂SO₂CH₂CH₂NH₂ to give a dye. λ_{max} 415 nm, which conferred golden yellow shades on cellulosic fabrics.

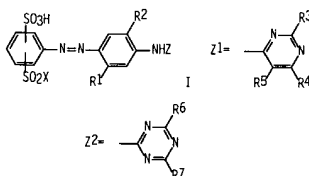
IT 153078-21-8P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of, as yellow dye for cotton)
 RN 153078-21-8 CAPLUS
 CN Benzenesulfonic acid, 5-[[4-[[2-(acetyloxy)ethyl]sulfonyl]phenyl]azo]-2-amino-4-[[4,6-bis(cyanoamino)-1,3,5-triazin-2-yl]amino]- (9CI) (CA INDEX)

L5 ANSWER 18 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



L5 ANSWER 19 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1994:32875 CAPLUS
 DOCUMENT NUMBER: 120:32875
 TITLE: Water-soluble reactive monoazo dyes
 INVENTOR(S): Takahashi, Yousuke; Shimizu, Yukiharu; Hihara, Toshio; Himeno, Kiyoshi
 PATENT ASSIGNEE(S): Hoechst Mitsubishi Kasei Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 30 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 567036	A1	19931027	EP 1993-106303	19930419
EP 567036	B1	19980715		
R: BE, CH, DE, ES, FR, GB, IT, LI				
JP 06184456	A2	19940705	JP 1993-98352	19930402
ES 2120457	T3	19981101	ES 1993-106303	19930419
US 5380827	A	19950110	US 1993-49410	19930420
US 37004	E	20001226	US 1997-916366	19970822
PRIORITY APPLN. INFO.:			JP 1992-125380	A 19920420
			JP 1992-134426	A 19920428
			JP 1992-307867	A 19921023
			US 1993-49410	A5 19930420
OTHER SOURCE(S):			MARPAT 120:32875	
GRAPHIC IMAGE:				



ABSTRACT:
 The yellow to orange dyes I (R₁ = Me, NHCOR; R₂ = H, alkyl, alkoxy; R₃, R₄ = halogen; R₅ = halogen; CN; R₆ = halogen, substituted amino; R₇ = halogen, substituted amino contg. SO₂X; X = CH₂CH₂ or precursor; Y = NH₂, Me, Et, CH₂CH₂CO₂H, CH₂CH₂CO₂H; Z = Z₁, Z₂) show good fastness to C1 and light and

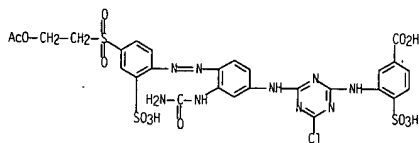
L5 ANSWER 19 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 improved levelness and buildup on cellulosic and N-contg. fibers. Thus, I
 (SO₃H ortho, XS02 = 4-HO₃SOCH₂CH₂SO₂, R1 = NHCONH₂, R2 = H, Z = Z₂, R6 =
 NHC₆H₄SO₃H-3, R7 = Cl), .lambda.max 404 nm. showed better levelness and buildup
 on cotton than a conventional monoazo dye with the same functionality
 distributed differently.

IT 151650-27-0P

RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of, as yellow dye for cotton)

RN 151650-27-0 CAPLUS

CN Benzoic acid, 3-[[[4-[[[4-[[[2-(acetoxy)ethyl]sulfonyl]-2-
 sulfo]phenyl]azo]-3-[(aminocarbonyl)amino]phenyl]amino]-6-chloro-1,3,5-
 triazin-2-yl]amino]-4-sulfo- (9CI) (CA INDEX NAME)



L5 ANSWER 20 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1994:32838 CAPLUS

DOCUMENT NUMBER: 120:32838

TITLE: Crosslinked polymer materials for nonlinear optics.
 1. UV-cured acrylic monomers bearing azobenzene dyes

AUTHOR(S): Boogers, J. A. F.; Klaase, P. T. A.; de Vlieger, J.
 J.; Alkema, D. P. W.; Tinnemans, A. H. A.

CORPORATE SOURCE: Ind. Res. Plast. Rubber Res. Inst., TNO, Delft, 2600
 JA, Neth.

SOURCE: Macromolecules (1994), 27(1), 197-204

CODEN: MAMOBX; ISSN: 0024-9297

DOCUMENT TYPE: Journal

LANGUAGE: English

ABSTRACT:
 4-Nitro-4'-[bis[2-(acryloyloxy)ethyl]amino]azobenzene and a disazo dye
 tetramethacrylate are converted by relatively fast UV curing (90 min) at modest
 temps. (apprx. 60-70.degree.) into highly stable nonlinear optical (NLO)
 materials in which loadings of NLO moieties can be achieved. Although
 the two monomers exhibit partial degradn. during UV-initiated radical polymn.,
 the highly crosslinked formulations showed very stable second harmonic
 generation activities. The tetramethacrylate which has a resonantly enhanced
 d33 of 13 pm/V is stable during >1 yr at room temp. and shows no relaxation for
 a week at 80.degree..

IT 151704-43-7

RL: USES (Uses)

(photochem. prepn. and nonlinear optical properties of)

RN 151704-43-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (4-methyl-1,3-phenylene)bis[iminocarbonyloxy-
 2,1-ethanediyl][2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]imino]-4,1-
 phenyleneazo-4,1-phenylenesulfonyl-2,1-ethanediyl] ester, polymer with
 Photomer 3016 (9CI) (CA INDEX NAME)

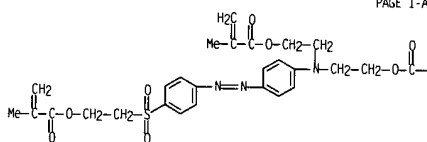
CM 1

CRN 151514-08-8

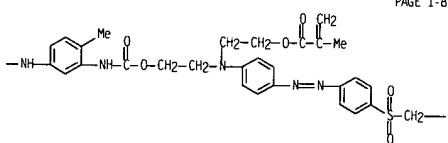
CHF C61 H68 N8 O16 S2

L5 ANSWER 20 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

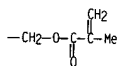
PAGE 1-A



PAGE 1-B



PAGE 1-C



CM 2

CRN 102641-47-4

CHF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 151514-13-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

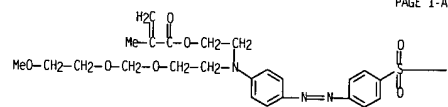
(prepn. and deprotection of)

RN 151514-13-5 CAPLUS

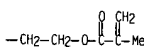
L5 ANSWER 20 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

CN 2-Propenoic acid, 2-methyl-, 2-[[[4-[[[4-[[[2-
 methoxyethoxy]methoxy]ethyl][2-[(2-methyl-1-oxo-2-
 propenyl)oxy]ethyl]amino]phenyl]azo]phenyl]sulfonyl]ethyl ester (9CI) (CA
 INDEX NAME)

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IT 151514-08-8P

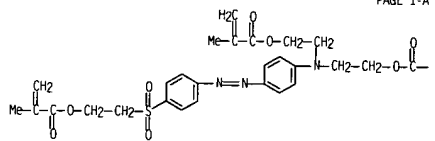
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

(prepn. and polymn. of, optical nonlinear materials from)

RN 151514-08-8 CAPLUS

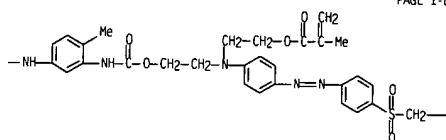
CN 2-Propenoic acid, 2-methyl-, (4-methyl-1,3-phenylene)bis[iminocarbonyloxy-
 2,1-ethanediyl][2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]imino]-4,1-
 phenyleneazo-4,1-phenylenesulfonyl-2,1-ethanediyl] ester (9CI) (CA INDEX
 NAME)

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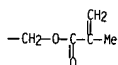


L5 ANSWER 20 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

PAGE 1-B



PAGE 1-C

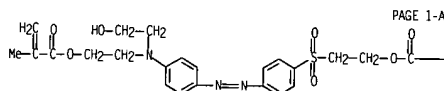


IT 151514-14-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with TD1)

RN 151514-14-6 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[[[4-[(2-hydroxyethyl)[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]amino]phenyl]azo]phenyl]sulfonyl]ethyl ester (9C1) (CA INDEX NAME)



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L5 ANSWER 21 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1993:410448 CAPLUS

DOCUMENT NUMBER: 119:10448

TITLE: Azo dyes with several reactive groups and their use

INVENTOR(S): Siegel, Bernd; Patsch, Manfred

PATENT ASSIGNEE(S): BASF A.-G., Germany

SOURCE: Ger. Offen., 38 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

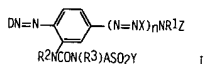
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4116785	A1	19921126	DE 1991-4116785	19910523
EP 515844	A1	19921202	EP 1992-107098	19920425
EP 515844	B1	19951227		
R: CH, DE, FR, GB, IT, LI				
JP 05194872	A2	19930803	JP 1992-125756	19920519
US 5276148	A	19940104	US 1992-886835	19920522
PRIORITY APPLN. INFO.:		DE 1991-4116785	19910523	

OTHER SOURCE(S): MARPAT 119:10448

GRAPHIC IMAGE:



ABSTRACT:

The dyes [I: A = C2-8-alkylene, optionally contg. O or imino; D = (un)substituted Ph or naphthyl; R1, R2, R3 = H, Cl-4-alkyl, Ph; X = (un)substituted phenylene or naphthylene; Y = CH-CH2, CH2CH2O, where Q is removable under alk. conditions; Z = reactive group] are obtained for dyeing and printing of N- or OH-contg. org. substrates, esp. cotton. Thus, H2NC6H3(SO3H)2-2,4 was diazotized and coupled with m-H2NC6H4NHCOC2H4SO2C2H4OAc, and the product was condensed with tetrachloropyrimidine to give a dye which imparted to cotton light- and wetfast yellow shades.

IT 146548-80-3

RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with diazotized arom. amines)

RN 146548-80-3 CAPLUS

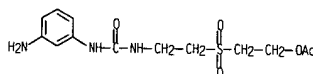
CN Urea, N-[2-[[2-(acetyloxy)ethyl]sulfonyl]ethyl]-N'-(3-aminophenyl)- (9C1)
(CA INDEX NAME)

L5 ANSWER 20 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

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L5 ANSWER 21 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



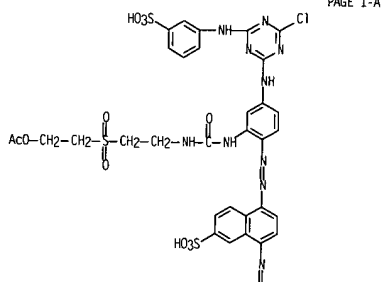
IT 148103-16-6P 148103-17-7P 148103-18-8P

148103-19-9P

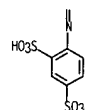
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of, as brown dye for cotton)

RN 148103-16-6 CAPLUS

CN 1,3-Benzenedisulfonic acid, 4-[[[4-[[[2-[[[2-(acetyloxy)ethyl]sulfonyl]ethyl]amino]carbonyl]amino]-4-[[4-chloro-6-[[3-sulphophenyl]amino]-1,3,5-triazin-2-yl]amino]phenyl]azo]-7-sulfo-1-naphthalenyl]azo]- (9C1) (CA INDEX NAME)



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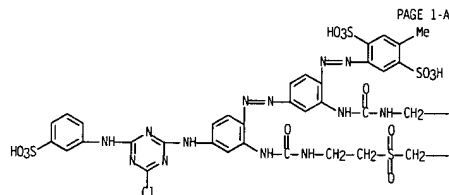


PAGE 2-A

L5 ANSWER 21 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

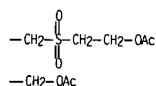
RN 148103-17-7 CAPLUS

CN 1,4-Benzenedisulfonic acid, 2-[[2-[[[2-[[2-(acetyloxyethyl)sulfonyl]ethyl]amino]carbonyl]amino]-4-[[2-[[[2-[[2-(acetyloxyethyl)sulfonyl]ethyl]amino]carbonyl]amino]-4-[[4-chloro-6-[[3-sulfonyl]amino]-1,3,5-triazin-2-yl]amino]phenyl]azo]phenyl]azo]-5-methyl- (9CI) (CA INDEX NAME)



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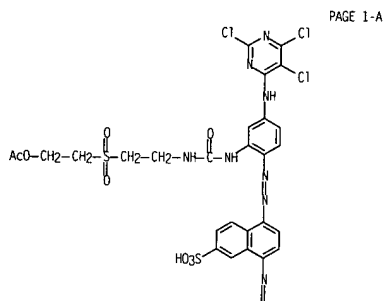
PAGE 1-B



RN 148103-18-8 CAPLUS

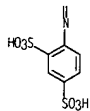
CN 1,4-Benzenedisulfonic acid, 2-[[2-[[[2-[[2-(acetyloxyethyl)sulfonyl]ethyl]amino]carbonyl]amino]-4-[[4-[[4-chloro-6-[[3-sulfonyl]amino]-1,3,5-triazin-2-yl]amino]-7-sulfo-1-naphthalenyl]azo]phenyl]azo]-5-methyl- (9CI) (CA INDEX NAME)

L5 ANSWER 21 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



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IT 148103-09-7P 148103-10-0P 148103-11-1P

148103-12-2P 148103-13-3P 148103-14-4P

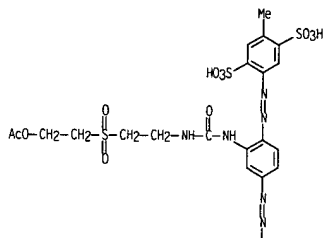
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of, as yellow dye for cotton)

RN 148103-09-7 CAPLUS

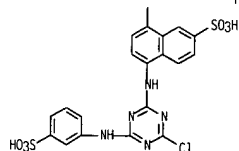
CN 1,3-Benzenedisulfonic acid, 4-[[2-[[[2-[[2-(acetyloxyethyl)sulfonyl]ethyl]amino]carbonyl]amino]-4-[[2,5,6-trichloro-4-pyrimidinyl]amino]phenyl]azo]- (9CI) (CA INDEX NAME)

L5 ANSWER 21 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

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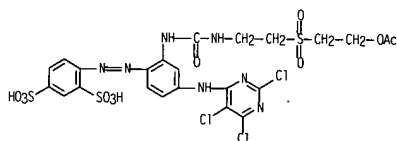
PAGE 2-A



RN 148103-19-9 CAPLUS

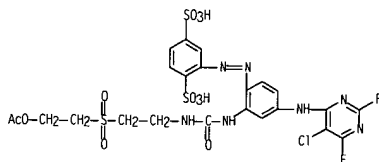
CN 1,3-Benzenedisulfonic acid, 4-[[2-[[[2-[[2-(acetyloxyethyl)sulfonyl]ethyl]amino]carbonyl]amino]-4-[[2,5,6-trichloro-4-pyrimidinyl]amino]phenyl]azo]-7-sulfo-1-naphthalenyl]azo]- (9CI) (CA INDEX NAME)

L5 ANSWER 21 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



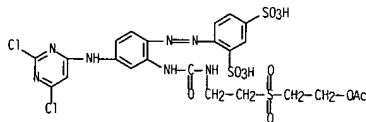
RN 148103-10-0 CAPLUS

CN 1,4-Benzenedisulfonic acid, 2-[[2-[[[2-[[2-(acetyloxyethyl)sulfonyl]ethyl]amino]carbonyl]amino]-4-[[5-chloro-2,6-difluoro-4-pyrimidinyl]amino]phenyl]azo]- (9CI) (CA INDEX NAME)



RN 148103-11-1 CAPLUS

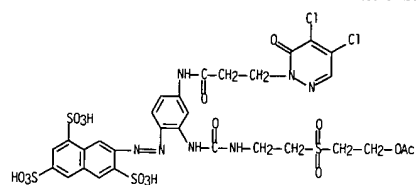
CN 1,3-Benzenedisulfonic acid, 4-[[2-[[[2-[[2-(acetyloxyethyl)sulfonyl]ethyl]amino]carbonyl]amino]-4-[[2,6-dichloro-4-pyrimidinyl]amino]phenyl]azo]- (9CI) (CA INDEX NAME)



RN 148103-12-2 CAPLUS

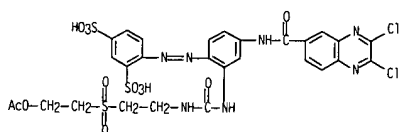
CN 1,3,6-Naphthalenetrisulfonic acid, 7-[[2-[[[2-[[2-(acetyloxyethyl)sulfonyl]ethyl]amino]carbonyl]amino]-4-[[3-(4,5-dichloro-6-oxo-1(6H)-pyridazinyl)-1-oxopropyl]amino]phenyl]azo]- (9CI) (CA INDEX NAME)

L5 ANSWER 21 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



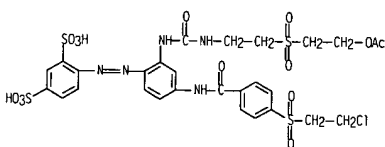
RN 148103-13-3 CAPLUS

CN 1,3-Benzenedisulfonic acid, 4-[[[2-[[[2-(acetyloxy)ethyl]sulfonyl]ethyl]amino]carbonyl]amino]-4-[[[2-(2,3-dichloro-6-quinoxalyl)carbonyl]amino]phenyl]azo]- (9C1) (CA INDEX NAME)



RN 148103-14-4 CAPLUS

CN 1,3-Benzenedisulfonic acid, 4-[[[2-[[[2-(acetyloxy)ethyl]sulfonyl]ethyl]amino]carbonyl]amino]-4-[[[2-(2-chloroethyl)sulfonyl]benzoyl]amino]phenyl]azo]- (9C1) (CA INDEX NAME)



L5 ANSWER 22 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1993:214886 CAPLUS

DOCUMENT NUMBER: 118:214886

TITLE: Pyrrolo[1,2-b]triazoles

INVENTOR(S): Suzuki, Makoto; Mikoshiba, Hisashi; Takahashi, Osamu; Shimada, Yasuhiro; Matsuka, Koushin; Yamazaki, Shigeru; Yamakawa, Kazuyoshi; Sato, Kozo

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 65 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 518238	A1	19921216	EP 1992-109588	19920605
EP 518238	B1	19990407		
R: CH, DE, FR, GB, LI, NL				
JP 04359968	A2	19921214	JP 1991-162324	19910607
JP 05202049	A2	19930810	JP 1992-69980	19920221
JP 3016104	B2	20000306		
JP 05202004	A2	19930810	JP 1992-70020	19920221
EP 903350	A1	19990324	EP 1998-117148	19920605
R: CH, DE, FR, GB, LI, NL				

PRIORITY APPLN. INFO.:

JP 1991-162324	A	19910607
JP 1991-311212	A	19911127
JP 1991-335861	A	19911127
JP 1992-69980	A	19920221
EP 1992-109588	A3	19920605

OTHER SOURCE(S): MARPAT 118:214886

GRAPHIC IMAGE:

L5 ANSWER 22 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

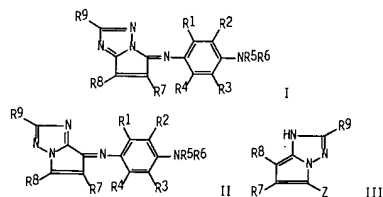
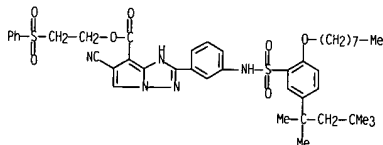
Heat- and lightfast cyan dyes I and II and cyan couplers III (R1-R4, R8, R9 = H, org. group; R5, R6 = H, alkyl, aryl, heterocyclyl; R7 = electrophilic group with Hammett .sigma.p .gtoreq.0.15; the sum of the .sigma.p of R7 and R8 is .gtoreq.0.65; pairs of adjacent R's may form fused rings; Z = H, NO, halo, arylthio, arylsulfinyl, heterocyclylthio) are provided. Thus, cyclocondensation of 3-(cyanomethyl)-5-methyl-1,2,4-triazole with BrCH2COCOC2Et in THF in the presence of NaH gave 45% III (R7 = CO2Et, R8 = CN, R9 = Me, Z = H), which was oxidatively condensed with 4-[ethyl[2-(methylsulfonamido)ethyl]amino]-o-toluidine-H2SO4 to give 37% I (R1 = R9 = Me, R2-R4 = H, R5 = Et, R6 = CH2CH2NHSO2Me, R7 = CO2Et, R8 = CN), .lambda.max 602.3 nm in EtOAc, compared with 562.6 nm for the analog with R7 = Ph.

IT 146822-51-7P

RL: IMF (Industrial manufacture): PREP (Preparation) (prepn. of)

RN 146822-51-7 CAPLUS

CN 1H-Pyrrolo[1,2-b][1,2,4]triazole-7-carboxylic acid, 6-cyano-2-[3-[[[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]amino]phenyl]-, 2-(phenylsulfonyl)ethyl ester (9C1) (CA INDEX NAME)



ABSTRACT:

L5 ANSWER 23 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1993:149446 CAPLUS

DOCUMENT NUMBER: 118:149446

TITLE: Dyes with two (phenylazo)- or (naphthylazo)benzene moieties and multiple reactive groups, their use, and phenylenediamine intermediates in their preparation
 Siegel, Bernd; Patsch, Manfred
 BASF A.-G., Germany
 Eur. Pat. Appl., 21 pp.
 CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

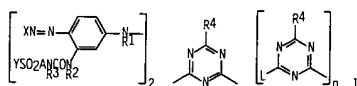
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 503385	A1	19920916	EP 1992-103342	19920227
EP 503385	B1	19950809		
R: CH, DE, FR, GB, IT, LI				
DE 4107692	A1	19920917	DE 1991-4107692	19910309
US 5182371	A	19930126	US 1992-835484	19920214
JP 05093147	A2	19930416	JP 1992-48712	19920305
JP 2935609	B2	19900816		
US 5354882	A	19941011	US 1992-906656	19920630
PRIORITY APPLN. INFO.:				
			DE 1991-4107692	19910309
			US 1992-835484	19920214

OTHER SOURCE(S): MARPAT 118:149446

GRAPHIC IMAGE:



ABSTRACT:

The dyes [I: R1-R3 = H, C1-4-alkyl, phenyl; R4 = F, Cl, Br, C1-4-alkylsulfonyl, PhSO2, or nicotinic betaine; L = bridging group; A = C2-8-alkylene (un)interrupted by O or imino; X = (un)substituted Ph or naphthyl; Y = vinyl or precursor; n = 0, 1] are obtained for dyeing and printing of HO- or N-contg. org. substrates. Thus, H2NC6H3(SO3H)2-2,4 was diazotized and coupled with 3-H2NC6H4NHCNHC2H4SO2C2H4OAc and the product was condensed with cyanuric chloride to provide a reactive dye (λ_{max} 378 nm), which conferred yellow moisture- and lightfast shades on cotton.

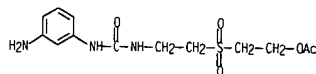
L5 ANSWER 23 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

IT 146548-80-3P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and coupling with diazotized anilinedisulfonic acid)

RN 146548-80-3 CAPLUS

CN Urea, N-[2-[[2-(acetyloxy)ethyl]sulfonyl]ethyl]-N'-(3-aminophenyl)- (9C1)
 (CA INDEX NAME)

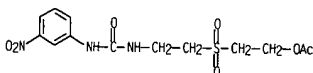


IT 146548-79-0P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and reduct. of)

RN 146548-79-0 CAPLUS

CN Urea, N-[2-[[2-(acetyloxy)ethyl]sulfonyl]ethyl]-N'-(3-nitrophenyl)- (9C1)
 (CA INDEX NAME)



IT 146548-74-5P 146548-77-8P 146548-78-9P

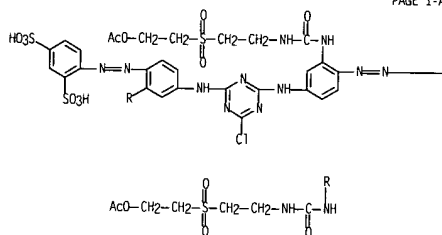
RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of, as yellow dye for cotton)

RN 146548-74-5 CAPLUS

CN 1,3-Benzenedisulfonic acid, 4,4'-[(6-chloro-1,3,5-triazine-2,4-diyl)bis(imino[2-[[[2-[[2-(acetyloxy)ethyl]sulfonyl]amino]carbonyl]amino]-4,1-phenylene]azo]]bis- (9C1) (CA INDEX NAME)

L5 ANSWER 23 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

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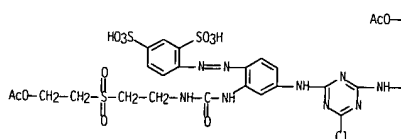
PAGE 1-B



RN 146548-77-8 CAPLUS

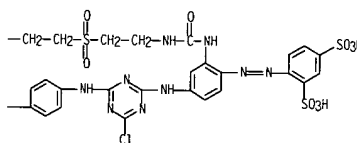
CN 1,3-Benzenedisulfonic acid, 4,4'-[[1,4-phenylenebis(imino(6-chloro-1,3,5-triazine-4,2-diyl)imino[2-[[[2-[[2-(acetyloxy)ethyl]sulfonyl]amino]carbonyl]amino]-4,1-phenylene]azo]]bis- (9C1) (CA INDEX NAME)

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L5 ANSWER 23 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

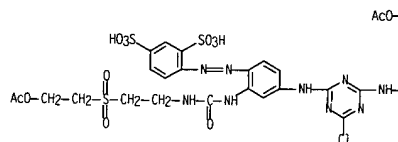
PAGE 1-B



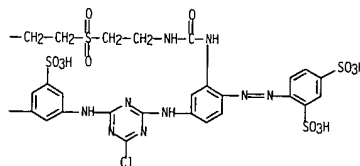
RN 146548-78-9 CAPLUS

CN 1,3-Benzenedisulfonic acid, 4,4'-[(5-sulfo-1,3-phenylene)bis(imino(6-chloro-1,3,5-triazine-4,2-diyl)imino[2-[[[2-[[2-(acetyloxy)ethyl]sulfonyl]amino]carbonyl]amino]-4,1-phenylene]azo]]bis- (9C1) (CA INDEX NAME)

PAGE 1-A

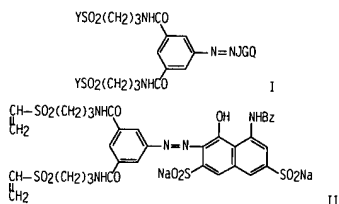


PAGE 1-B



L5 ANSWER 24 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1991:83883 CAPLUS
 DOCUMENT NUMBER: 114:83883
 TITLE: Fiber-reactive water-soluble azo dyes
 INVENTOR(S): Haehnle, Reinhard
 PATENT ASSIGNEE(S): Hoechst A.-G., Germany
 SOURCE: Ger. Offen., 21 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

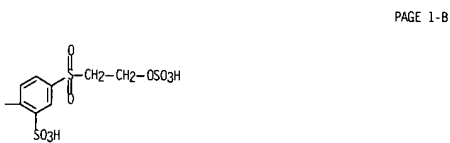
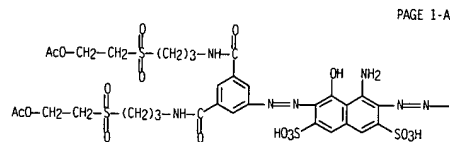
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3905270	A1	19900823	DE 1989-3905270	19890221
EP 385204	A1	19900905	EP 1990-103080	19900217
R: BE, CH, DE, FR, GB, IT, LI				
JP 02247258	A2	19901003	JP 1990-37541	19900220
PRIORITY APPLN. INFO.:		DE 1989-3905270 19890221		
OTHER SOURCE(S):		CASREACT 114:83883; MARPAT 114:83883		
GRAPHIC IMAGE:				



ABSTRACT:
 The title dyes I [G = RNC(O), RNSO₂, N=N; R = H, C1-4 alkyl; J = (un)substituted phenylene, (un)substituted naphthylene; Q = aliph. residue, arom. residue optionally contg. fiber-reactive residues; Y = CH₂, .beta.-sulfoethyl, .beta.-acetyloxyethyl, .beta.-thiosulfoethyl], useful for dyeing or printing hydroxyl and/or carbonamide group-contg. fabrics, are prepd. Thus, 5-aminobenzene-1,3-bis[.gamma.-(.beta.-hydroxyethylsulfonyl)-N-propyl]carboxamide was sulfated in oleum at 70 degree, neutralized, diazotized, with 1-(benzoylamino)-8-hydroxy-3,6-naphthalenedisulfonic acid, and

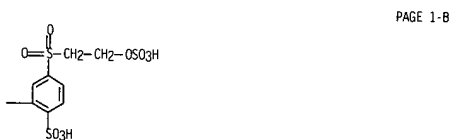
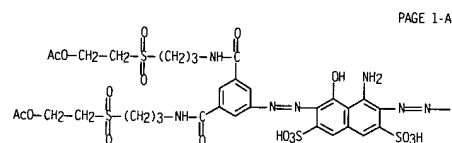
L5 ANSWER 24 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 the intermediate hydrolyzed in aq. NaOH soln. at pH 10.5 for .apprx.15 min. producing II. .lambda.max 505 nm. which dyed cellulosic fabrics fast red shades.

IT 131958-81-1P 131989-67-8P
 RL: PREP (Preparation)
 (manuf. of, as navy blue reactive dye)
 RN 131958-81-1 CAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[3,5-bis[[[3-[[2-(acetyloxy)ethyl]sulfonyl]propyl]amino]carbonyl]phenyl]azo]-5-hydroxy-3-[[2-sulfo-4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]- (9C1) (CA INDEX NAME)

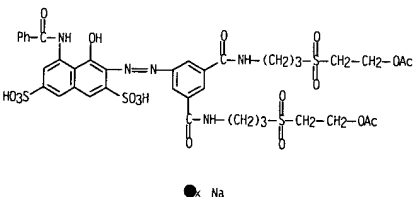


RN 131989-67-8 CAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[3,5-bis[[[3-[[2-(acetyloxy)ethyl]sulfonyl]propyl]amino]carbonyl]phenyl]azo]-5-hydroxy-3-[[2-sulfo-5-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]- (9C1) (CA INDEX NAME)

L5 ANSWER 24 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



IT 132037-44-6P
 RL: PREP (Preparation)
 (manuf. of, as red reactive dyes)
 RN 132037-44-6 CAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 5-(benzoylamino)-3-[[3,5-bis[[[3-[[2-(acetyloxy)ethyl]sulfonyl]propyl]amino]carbonyl]phenyl]azo]-4-hydroxy-, sodium salt (9C1) (CA INDEX NAME)



L5 ANSWER 25 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1991:64247 CAPLUS
 DOCUMENT NUMBER: 114:64247
 TITLE: Reactive copper formazan blue dyes
 INVENTOR(S): Schwaiger, Guenther; Springer, Hartmut
 PATENT ASSIGNEE(S): Hoechst A.-G., Germany
 SOURCE: Ger. Offen., 17 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3903455	A1	19900809	DE 1989-3903455	19890206
EP 382111	A1	19900816	EP 1990-102066	19900202
EP 382111	B1	19940608		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL				
US 5015731	A	19910514	US 1990-474531	19900202
AT 106931	E	19940615	AT 1990-102066	19900202
ES 2056257	T3	19941001	ES 1990-102066	19900202
IN 175001	A	19950415	IN 1990-CA95	19900202
BR 9000496	A	19910115	BR 1990-496	19900205
JP 03128972	A2	19910531	JP 1990-24570	19900205
JP 08009692	B4	19960131		
IN 176060	A	19960106	IN 1993-CA747	19931202
IN 177210	A	19961207	IN 1993-CA749	19931202
PRIORITY APPLN. INFO.:		DE 1989-3903455 A 19890206		
		EP 1990-102066 A 19900202		
		IN 1990-CA95 A1 19900202		
OTHER SOURCE(S):		MARPAT 114:64247		
GRAPHIC IMAGE:				

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

ABSTRACT:
 The title dyes I [A = (un)substituted benzene ring, (un)substituted naphthalene ring; D1 = (un)substituted phenylene, (un)substituted naphthylene; D2 = (un)substituted C1-8 alkylene, (un)substituted C2-8 alkenylene, (un)substituted phenylene, or bivalent furan, thiophene, pyrrole, imidazole, indole, pyrazole, pyridine, pyrimidine, quinoline, benzimidazole, or naphthalene residue, and D2 and Z may jointly be H; M = H, alkali metal, alk. earth metal; R = H, (un)substituted C1-4 alkyl; Y = CH₂, CH₂G; G = alkali-cleavable substituent; X = O, CO₂; Z = water-solubilizing group; k = 1,2; m = 0-2; m + n = 1-4], useful for dyeing or printing hydroxyl and/or carbonamide group-contg. fabrics, are prepd. Thus, Na salts of hydrazones prepd. from 2-carboxy-5-sulfo-phenylhydrazine and benzaldehyde were coupled with diazotized 6-acetyl-amino-4-sulfo-2-aminophenol and CuSO₄.5H₂O, Na₂CO₃, cyanuric chloride,

L5 ANSWER 25 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
cyanamide, and 3-(beta-sulfoethylsulfonyl)aniline were added, forming II, which dyed cotton and rayon fabrics fast blue shades.

IT 131608-61-2P

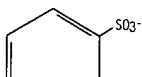
RL: PREP (Preparation)

(manuf. of. as blue reactive dye for cotton and rayon)

RN 131608-61-2 CAPLUS

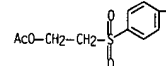
CN Cuprate(3-), [2-[[[3-[[4-[[2-(acetyloxy)ethyl]sulfonyl]phenyl]amino]-6-(cyanoamino)-1,3,5-triazin-2-yl]amino]-2-hydroxy-5-sulphophenyl]azo]phenylmethyl]azo]-4-sulphobenzoate(5-)]-, trihydrogen (9C1) (CA INDEX NAME)

PAGE 1-B



L5 ANSWER 25 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

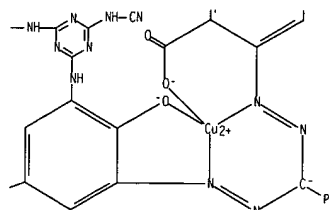
PAGE 2-A



-O₃S-

● 3 H⁺

PAGE 2-B



L5 ANSWER 26 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1989:555878 CAPLUS

DOCUMENT NUMBER: 111:155878

TITLE: Preparation of bis(substituted styryl)benzenes as optical brighteners

INVENTOR(S): Etzbach, Karl Heinz; Hauptreif, Manfred; Sens, Ruediger

PATENT ASSIGNEE(S): BASF A.-G., Fed. Rep. Ger.

SOURCE: Eur. Pat. Appl., 11 pp.

CODEN: EPXXDW

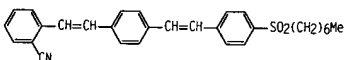
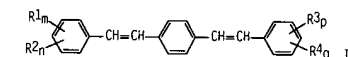
DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 302441	A2	19890208	EP 1988-112508	19880802
EP 302441	A3	19910327		
EP 302441	B1	19930512		
R: CH, DE, FR, GB, IT, LI				
DE 3725928	A1	19890216	DE 1987-3725928	19870805
DE 3813334	A1	19891102	DE 1988-3813334	19880421
JP 01230675	A2	19890914	JP 1988-194738	19880805
PRIORITY APPLN. INFO.:				
			DE 1987-3725928	19870805
			DE 1988-3813334	19880421
OTHER SOURCE(S): CASREACT 111:155878; MARPAT 111:155878				
GRAPHIC IMAGE:				



IV

ABSTRACT:

The title compds. [I: (un) substituted PhSO₂, PhOSO₂, alkylsulfonyl, mono- or dialkylsulfonyl; R₂, R₃ = H, F, Cl, alkyl, alkoxy, (un) substituted PhO; R₄ = F, Cl, cyano, CONH₂, heterocyclylcarbonyl, etc.; m, n, p, q = 1, 2] were prep'd. as optical brighteners for polyesters (no data). Thus, terephthalaldehyde and 2-(NC)C₆H₄CH₂P(O)(OEt)₂ were stirred 18 h at 40-45.degree. in AcOCH₂CH₂OMe during which 30% methanolic NaOMe was added dropwise and the mixt. was stirred an addnl. 20 h at 25.degree. to give 2-(NC)C₆H₄CH:CHC₆H₄(CHO)-4 (II). 4-RC₆H₄SO₂(CH₂)₆Me (III; R = Me) was refluxed 4 h with NBS in cyclohexane contg. AIBN to give III (R = CH₂Br) which was refluxed 2 h with (EtO)₃P to give III [R = CH₂P(O)(OEt)₂]. The latter and II were stirred at 40.degree. in DMF

L5 ANSWER 26 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
with addn. of 30% methanolic NaOMe and the mixt. stirred an addnl. 4 h at 40.degree. and 16 h at 20-24.degree. to give title compd. IV.

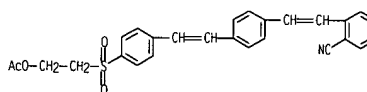
IT 122912-84-9P 122912-85-0P 122913-21-7P

122913-22-8P

RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of. as polyester optical brightener)

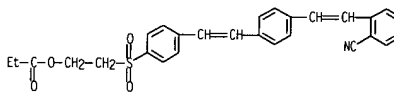
RN 122912-84-9 CAPLUS

CN Benzonitrile, 2-[2-[4-[2-[4-[[2-(acetyloxy)ethyl]sulfonyl]phenyl]ethenyl]phenyl]ethenyl]- (9C1) (CA INDEX NAME)



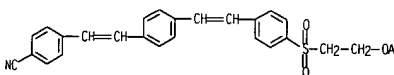
RN 122912-85-0 CAPLUS

CN Benzonitrile, 2-[2-[4-[2-[4-[[2-(1-oxopropoxy)ethyl]sulfonyl]phenyl]ethenyl]phenyl]ethenyl]- (9C1) (CA INDEX NAME)



RN 122913-21-7 CAPLUS

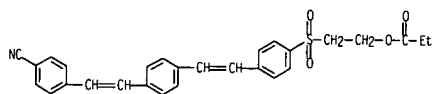
CN Benzonitrile, 4-[2-[4-[2-[4-[[2-(acetyloxy)ethyl]sulfonyl]phenyl]ethenyl]phenyl]ethenyl]- (9C1) (CA INDEX NAME)



RN 122913-22-8 CAPLUS

CN Benzonitrile, 4-[2-[4-[2-[4-[[2-(1-oxopropoxy)ethyl]sulfonyl]phenyl]ethenyl]phenyl]ethenyl]- (9C1) (CA INDEX NAME)

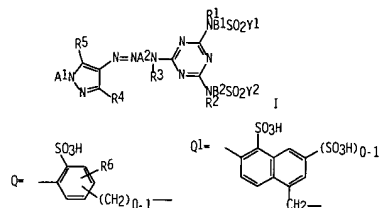
L5 ANSWER 26 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



L5 ANSWER 27 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1989:156101 CAPLUS
 DOCUMENT NUMBER: 110:156101
 TITLE: Yellow monoazo reactive dyes for dyeing and printing fiber material
 INVENTOR(S): Yoshikawa, Sadanobu; Omura, Takashi
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho. 13 pp.
 CODEN: JXXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63207862	A2	19880829	JP 1987-39866	19870223
JP 08026238	B4	19960313		

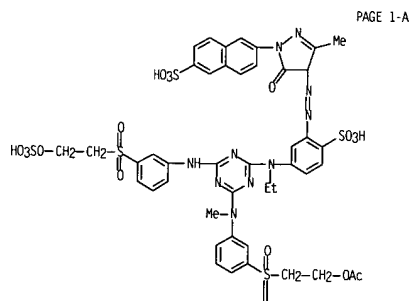
PRIORITY APPLN. INFO.: JP 1987-39866 19870223
 OTHER SOURCE(S): MARPAT 110:156101
 GRAPHIC IMAGE:



ABSTRACT:
 The title dyes showing good colorfastness, leveling, water soly., and buildup properties on cotton have the free-acid form I [R1, R2, R3 = H, (un)substituted lower alkyl; B1, B2 = (un)substituted phenylene, (sulfo)naphthalene; Y1, Y2 = CH2CH2, CH2CH2Z; Z = alkali-removable group; R4 = Me, CO2H, C1-4 alkoxy carbonyl; R5 = OH, NH2; A1 = (un)substituted Ph, naphthyl; A2 = Q, Q1; R6 = H, Me, SO3H]. Cyanuric chloride was condensed with 2,4-(H2N)2C6H3SO3H, the condensate diazotized and coupled with 1-(4-sulfophenyl)-3-methyl-5-pyrazolone, and the coupling product condensed with 1-H2NC6H4SO2CH2CH2SO3H, then

L5 ANSWER 27 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 m-H2NC6H4SO2CH2CH2SO3H to give the corresponding I.

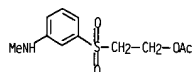
IT 118579-49-0
 RL: TEM (Technical or engineered material use); USES (Uses)
 (dye, yellow, for cotton)
 RN 118579-49-0 CAPLUS
 CN 2-Naphthalenesulfonic acid, 6-[4-[[[5-[[[4-[[[3-[[[2-(acetoxy)ethyl]sulfonyl]phenyl]methylamino]-6-[[[3-[[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]ethylamino]-2-sulfo]phenyl]azo]-4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-1-yl]]- (9CI) (CA INDEX NAME)



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L5 ANSWER 27 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

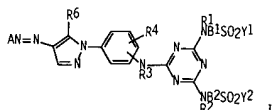


IT 118579-13-8
 RL: USES (Uses)
 (in reactive monoazo dye manuf.)
 RN 118579-13-8 CAPLUS
 CN Ethanol, 2-[[[3-(methylamino)phenyl]sulfonyl]-, acetate (ester) (9CI) (CA INDEX NAME)

L5 ANSWER 28 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1989:156100 CAPLUS
 DOCUMENT NUMBER: 110:156100
 TITLE: Yellow monoazo reactive dyes for dyeing and printing fiber materials
 INVENTOR(S): Yoshikawa, Sadanobu; Omura, Takashi
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63207861	A2	19880829	JP 1987-39865	19870223
JP 08026239	B4	19960313		

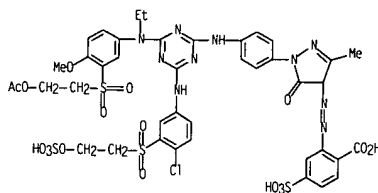
PRIORITY APPLN. INFO.: JP 1987-39865 19870223
 OTHER SOURCE(S): MARPAT 110:156100
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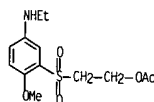
ABSTRACT:
 The title dyes showing good colorfastness, leveling, water soly., and buildup properties on cotton have the free-acid form I [R1,R2,R3 = H, (un)substituted lower alkyl; B1,B2 = (un)substituted phenylene, (sulfo)naphthalene; Y1,Y2 = CH:CH2, CH2CH2; Z = alkali-removable group; R4 = H, Me, SO3H; R5 = Me, CO2H, C1-4 alkoxy carbonyl; R6 = OH, NH2; A = (un)substituted Ph, naphthyl]. Cyanuric chloride was condensed with 1-(4-aminophenyl)-3-methyl-5-pyrazolone, the condensate coupled with diazotized 1,2,5-H2NC10H5(SO3H)2, and the coupling product condensed with p-EtNH2C6H4SO2CH2CH2SO3H, then m-H2NC6H4SO2CH2CH2SO3H to give the corresponding I.

IT 118524-66-6
 RL: TEM (Technical or engineered material use); USES (Uses)
 (dye, yellow, for cotton)
 RN 118524-66-6 CAPLUS

L5 ANSWER 28 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 CN Benzoic acid, 2-[[[1-[4-[[[3-[[[2-(acetyloxy)ethyl]sulfonyl]-4-methoxyphenyl]ethylamino]-6-[[4-chloro-3-[[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]phenyl]-4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-4-yl]azo]-4-sulfo- (9C1) (CA INDEX NAME)



IT 118524-48-4
 RL: USES (Uses)
 (in reactive monoazo dye manuf.)
 RN 118524-48-4 CAPLUS
 CN Ethanol, 2-[[[5-(ethylamino)-2-methoxyphenyl]sulfonyl]-, acetate (ester) (9C1) (CA INDEX NAME)

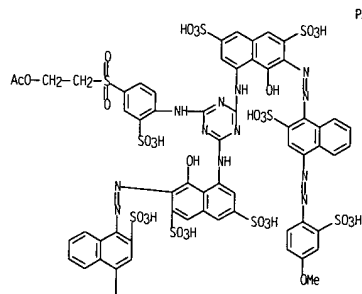


L5 ANSWER 29 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1989:156099 CAPLUS
 DOCUMENT NUMBER: 110:156099
 TITLE: Reactive tetrakisazo dyes
 INVENTOR(S): Hibara, Toshio; Sanada, Yukiyo; Kuniti, Keiko
 PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62132965	A2	19870616	JP 1985-272603	19851205
JP 06019042	B4	19940316		

PRIORITY APPLN. INFO.: JP 1985-272603 19851205
 GRAPHIC IMAGE:

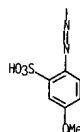
L5 ANSWER 29 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

ABSTRACT:
 The title dyes, which can be used for cellulosic and N-contg. fibers in the one-bath-one-step dyeing of polyester blends, having the free-acid form I [M = H, alkali metal; R1 = H, halogen, lower alkyl, alkoxy, carboxy; R2 = H, lower alkyl, alkoxy, sulfo; R3 = H, lower alkyl, alkoxy, ureido, acylamino, sulfo; R4 = H, lower alkyl; Z = halogen, pyridinio with or without O substituent, NRSXY; O = CO2M, CONH2; R5 = H, (un)substituted lower alkyl; Y = SO2CH:CH2, SO2CH2CH2; W = alkali-removable group; X = (un)substituted phenylene, naphthylene; m = 1-3; n = 0, 1; rings A and B could be naphthalene], are prep'd. Thus, 2-[4-(sulfo)phenylazo]-2-sulfo)phenylazo]-6-(4,6-difluoro-3-triazin-2-ylamino)-1-naphthol-3-sulfonic acid was condensed with 6-amino-2-[4-(4-sulfo)phenylazo]-2-sulfo)phenylazo]-1-naphthol-3-sulfonic acid and salted out with KCl to give II, which dyed cotton in a fast red shade.

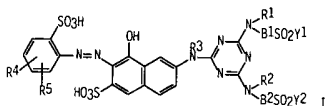
IT 113275-84-6P
 RL: PREP (Preparation)
 (manuf. of, as reactive dye for one-bath-one-step dyeing of polyester fiber blends)
 RN 113275-84-6 CAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 4,4'-[[[4-[[[2-(acetyloxy)ethyl]sulfonyl]-2-sulfo)phenyl]amino]-1,3,5-triazine-2,4-diyl]diimino]bis[5-hydroxy-6-[[[4-(4-methoxy-2-sulfo)phenyl]azo]-2-sulfo-1-naphthalenyl]azo]- (9C1) (CA INDEX NAME)



L5 ANSWER 30 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1989:116669 CAPLUS
 DOCUMENT NUMBER: 110:116669
 TITLE: Reactive monoazo dyes and dyeing and printing
 therewith
 INVENTOR(S): Yoshikawa, Sadanobu; Harada, Naoki; Omura, Takashi
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63235374	A2	19880930	JP 1987-72478	19870325
JP 08022973	B4	19960306		

PRIORITY APPLN. INFO.: JP 1987-72478 19870325
 OTHER SOURCE(S): MARPAT 110:116669
 GRAPHIC IMAGE:

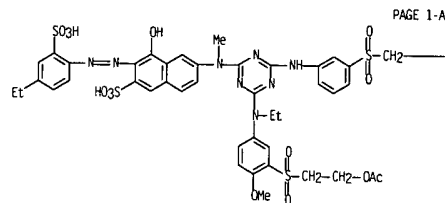


ABSTRACT:

The title dyes have the free-acid form I (R1, R2, R3 = H, (un)substituted lower alkyl; B1, B2 = (un)substituted phenylene, naphthylene; Y1, Y2 = CH2CH2, CH2CH2Z; Z = alkali-removable group; R4, R5 = H, Me, Et, MeO, EtO, Cl, Br, AcNH, EtCONH, NO2, SO3H, CO2H). These dyes were prepd. and used for dyeing and printing cotton fast level red shades with good buildup. Cyanuric chloride was condensed with 2-HO3SC6H4NH2 (wdarw. 1.7-HO(H2N)C10H5SO3H-3, m-ETNH6H4SO2CH2CH2SO3H, then m-H2NC6H4SO2CH2CH2SO3H, and salted to give I (R1 = Et; R2 = R3 = R4 = R5 = H; B1SO3Y1 = B2SO3Y2 = m-C6H4SO2CH2CH2SO3H; Na salt).

IT 119265-98-4
 RL: TEM (Technical or engineered material use); USES (Uses)
 (dye, for cotton)
 RN 119265-98-4 CAPLUS
 CN 2-Naphthalenesulfonic acid, 6-[[4-[[3-[[2-(acetoxy)ethyl]sulfonyl]-4-

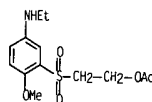
L5 ANSWER 30 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 methoxyphenyl]ethylamino]-6-[[3-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-
 1,3,5-triazin-2-yl]methylamino]-3-[[4-ethyl-2-sulphophenyl]azo]-4-hydroxy-
 (9C1) (CA INDEX NAME)



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-CH2-OSO3H

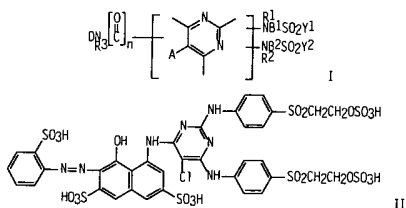
IT 118524-48-4
 RL: USES (Uses)
 (in reactive azo dye manuf.)
 RN 118524-48-4 CAPLUS
 CN Ethanol, 2-[[5-(ethylamino)-2-methoxyphenyl]sulfonyl]-, acetate (ester)
 (9C1) (CA INDEX NAME)



L5 ANSWER 31 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1989:116656 CAPLUS
 DOCUMENT NUMBER: 110:116656
 TITLE: Pyrimidine compounds for dyeing and printing fiber
 materials
 INVENTOR(S): Morimitsu, Toshihiko; Omura, Takashi
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63207860	A2	19880829	JP 1987-42224	19870224
JP 08026237	B4	19960313		

PRIORITY APPLN. INFO.: JP 1987-42224 19870224
 OTHER SOURCE(S): MARPAT 110:116656
 GRAPHIC IMAGE:



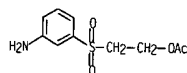
II

ABSTRACT:

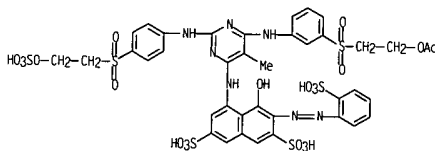
The title reactive dyes I [D = dye residue; n = 0.1; A = H, Cl, Br, Me, NO2, CN, carboxy, sulfo; R1-R3 = H, (un)substituted alkyl; B1, B2 = (un)substituted phenylene, naphthylene; Y1, Y2 = CH2CH2, vinyl; L = alkali-removable group], useful for dyeing and printing cotton, are prepd., 2,4,6-Trifluoro-5-chloropyrimidine was condensed with 1-amino-8-hydroxy-7-(o-sulphophenylazo)-3,6-naphthalenedisulfonic acid, p-H2NC6H4SO2CH2CH2SO3H, and m-H2NC6H4SO2CH2CH2SO3H, and salted to give II (Na salt), lambda max 540 nm (fabric color not specified).

IT 3753-07-9
 RL: USES (Uses)
 (in reactive azo dye manuf.)
 RN 3753-07-9 CAPLUS

L5 ANSWER 31 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 CN Ethanol, 2-[[3-(aminophenyl)sulfonyl]-, acetate (ester) (9C1) (CA INDEX NAME)

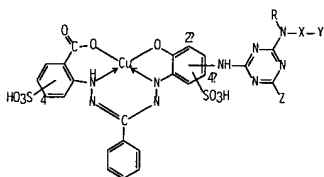


IT 118521-52-1P
 RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (manuf. of, as reactive dye for cotton)
 RN 118521-52-1 CAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 5-[[6-[[3-[[2-(acetoxy)ethyl]sulfonyl]phenyl]amino]-5-methyl-2-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-4-pyrimidinyl]amino]-4-hydroxy-3-[[2-sulphophenyl]azo]- (9C1) (CA INDEX NAME)



L5 ANSWER 32 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1989-116652 CAPLUS
 DOCUMENT NUMBER: 110-116652
 TITLE: Water-soluble formazan dyes and method of dyeing with same
 INVENTOR(S): Himeno, Kiyoshi; Hihara, Toshio; Shimizu, Kanji; Shimizu, Yukiharu
 PATENT ASSIGNEE(S): Mitsubishi Kasei Corp., Japan
 SOURCE: PCT Int. Appl., 50 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

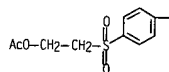
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8805065	A1	19880714	WO 1987-JP1025	19871224
W: KR, US				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
JP 63168465	A2	19880712	JP 1987-53	19870105
JP 63213568	A2	19880906	JP 1987-47344	19870302
EP 302115	A1	19890208	EP 1988-900577	19871224
EP 302115	B1	19920923		
R: CH, DE, GB, LI				
US 4985545	A	19910115	US 1988-243310	19880815
PRIORITY APPLN. INFO.:				
			JP 1987-53	19870105
			JP 1987-47344	19870302
OTHER SOURCE(S): MARPAT 110-116652				
GRAPHIC IMAGE:				



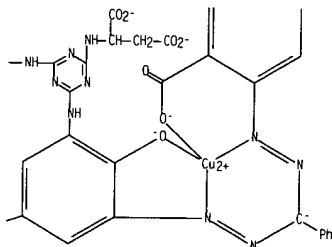
I

L5 ANSWER 32 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

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L5 ANSWER 32 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

ABSTRACT:

The title blue dyes I (when in free-acid form: R = (substituted) lower alkyl; X = (substituted) phenylene, naphthylene; Y = SO2CH2CH2, SO2C2H4W; W = alkali-cleavable group; Z = lower alkylamino, phenylamino, naphthylamino group with 1-2 water-sol. group chosen from sulfo, OH, and carboxy group) show excellent fastness and buildup properties on cellulose fibers. Formazan compd. I (4,4'-SO3H; 2'-NH bonding; Z = NHC2H4SO3H; NRXY = Cl) was treated with m-H2NC6H4SO2CH2CH2SO3H in water at 80-90 degree, and salted to give the corresponding I (NRXY = m-NHC6H4SO2CH2CH2SO3H; Na salt), fast blue on cotton.

IT 118278-47-0

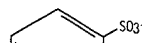
RL: USES (Uses)

(dye, blue, high-build, for cotton)

RN 118278-47-0 CAPLUS

CN Cuprate(5-), [N-[4-[[[4-[[2-(acetoxy)ethyl]sulfonyl]phenyl]amino]-6-[[3-[[[(2-carboxy-5-sulphophenyl)azo]phenylmethyl]azo]-2-hydroxy-5-sulphophenyl]amino]-1,3,5-triazin-2-yl]-L-aspartato(7-)]-pentahydrogen (9C1) (CA INDEX NAME)

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L5 ANSWER 33 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1988-632746 CAPLUS

DOCUMENT NUMBER: 109-232746

TITLE: Water-soluble reactive monoazo dyes and dyeing therewith

INVENTOR(S): Hibara, Toshio; Shimizu, Kanji; Shimizu, Yukiharu

PATENT ASSIGNEE(S): Mitsubishi Kasei Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKKXAF

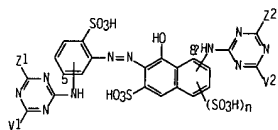
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63175075	A2	19880719	JP 1987-5570	19870113
JP 07081087	B4	19950830		
PRIORITY APPLN. INFO.:				
			JP 1987-5570	19870113
OTHER SOURCE(S): MARPAT 109-232746				
GRAPHIC IMAGE:				



I

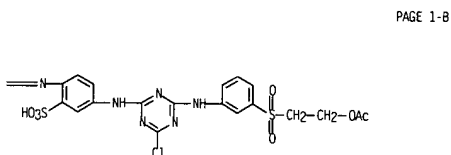
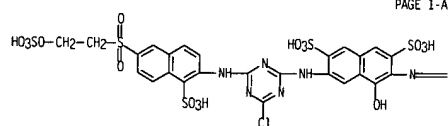
ABSTRACT:

The title dyes suitable for dyeing cellulosic and N-contg. fibers at 40-80 degree, with good fixation and buildup properties have the general structure I (when in free acid form) [Z1, Z2 = halogen; V1, V2 = HRXY, OR1, OR2OR3, OR2OR2OR3; at least one of V1 and V2 = NRXY; n = 0, 1; R = H, OH, CN, halogen, (un)substituted lower alkyl; R1 = OH, CN, (un)substituted lower alkyl; R2 = lower alkylene; R3 = lower alkyl; X = (un)substituted phenylene, naphthylene; Y = SO2CH2CH2, SO2CH2CH2W; W = alkali-removable group]. 2-Amino-4-[4-[3-(2-sulfatoethylsulfonyl)anilino]-6-chloro-s-triazin-2-ylamino]benzenesulfonic acid was diazotized and coupled with 1-(4-chloro-6-methoxy-s-triazin-2-ylamino)-8-hydroxy-3,6-naphthalenedisulfonic acid and salted with KCl to give I [5- and 8'-NH bonding; n = 1 (6'-SO3H); Z1 = Z2 = Cl; V1 = m-NHC6H4SO2CH2CH2SO3H; V2 = OMe; K salt], fast bluish red on cotton.

IT 117715-36-3

RL: TEM (Technical or engineered material use); USES (Uses)
 (dye, for cotton)

L5 ANSWER 33 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 RM 117715-36-3 CAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 3-[[4-[[[4-[[[2-(acetyloxy)ethyl]sulfonyl]phenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]-2-sulphonyl]azo]-6-[[4-chloro-6-[[1-sulfo-6-[[2-(sulfoxy)ethyl]sulfonyl]-2-naphthalenyl]amino]-1,3,5-triazin-2-yl]amino]-4-hydroxy- (9C1) (CA INDEX NAME)



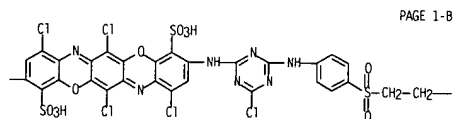
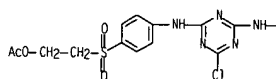
L5 ANSWER 34 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1988:592172 CAPLUS
 DOCUMENT NUMBER: 109:192172
 TITLE: Triphenodioxazine reactive dyes and process for their manufacture
 INVENTOR(S): Sawamoto, Hirokazu; Harada, Naoki; Omura, Takashi
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 35 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 275022	A2	19880720	EP 1988-100062	19880105
EP 275022	A3	19890125		
EP 275022	B1	19920506		
R: BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
JP 63170463	A2	19880714	JP 1987-1372	19870107
JP 07116376	B4	19951213		
US 4933446	A	19900612	US 1987-133605	19871216
ES 2037110	T3	19930616	ES 1988-100062	19880105
PRIORITY APPLN. INFO.:			JP 1987-1372	19870107
OTHER SOURCE(S):			MARPAT 109:192172	
GRAPHIC IMAGE:				

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

ABSTRACT:
 The title compds. I [O = SO₃H, OH, halogen, alkoxy, (un)substituted PhO, NH₂; R = halogen, alkyl, alkoxy, SO₃H; V = direct bond, NR₃; R₃ = H, (un)substituted alkyl; X = direct bond, divalent aliph., divalent alicyclic, divalent arylaliph., divalent arom. bridging group; Y = (un)substituted phenylene, (un)substituted naphthylene; Z = SO₂CH₂CH₂, SO₂CH₂CH₂Z₁; Z₁ = alkali-cleavable substituent], useful for dyeing or printing hydroxyl or amide group-contg. textiles, are prepd. 1,4-Diamino-2-methoxy-5-benzenesulfonic acid was condensed with chloranil, and the condensate cyclocondensed in the presence of 28% oleum to produce a diamino-substituted triphenodioxazine intermediate, which was condensed with cyanuric chloride, and the dichlorotriazine group-contg. intermediate condensed with 1-aminobenzene-3-.beta.-sulfoethylsulfone, forming II. .lambda.max 600 nm, which dyed cotton in a fast red-blue shade.

L5 ANSWER 34 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 IT 117331-35-8P
 RL: PREP (Preparation)
 (manuf. of, as blue reactive dye)
 RN 117331-35-8 CAPLUS
 CN 4,11-Triphenodioxazinedisulfonic acid, 3,10-bis[[4-[[[2-(acetyloxy)ethyl]sulfonyl]phenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]-1,6,8,13-tetrachloro- (9C1) (CA INDEX NAME)

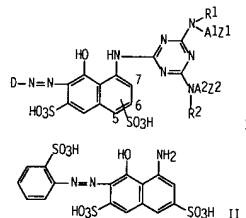


-OAc

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L5 ANSWER 35 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1988:475195 CAPLUS
 DOCUMENT NUMBER: 109:75195
 TITLE: Bifunctional vinylsulfone-type fiber-reactive monoazo dyes
 INVENTOR(S): Morimitsu, Toshihiko; Kikkawa, Sadanobu; Harada, Naoki; Omura, Takashi
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 38 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 262520	A1	19880406	EP 1987-113621	19870917
EP 262520	B1	19921209		
R: BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
JP 63128079	A2	19880531	JP 1986-274868	19861118
JP 07091483	B4	19951004		
JP 63183951	A2	19880729	JP 1987-207019	19870819
JP 2548946	B2	19961030		
US 4841032	A	19890620	US 1987-90508	19870828
ES 2052532	T3	19940716	ES 1987-113621	19870917
PRIORITY APPLN. INFO.:			JP 1986-223453	19860919
			JP 1986-274868	19861118
OTHER SOURCE(S):			CASREACT 109:75195	
GRAPHIC IMAGE:			MARPAT 109:75195	



ABSTRACT:
 The title dyes I [A₁, A₂ = (un)substituted phenylene or naphthylene; D = (un)substituted o-C₆H₄SO₃H, mono- to trisulfo- .beta.-naphthyl; R₁, R₂ = H, (un)substituted alkyl; Z₁, Z₂ = SO₂CH₂CH₂, SO₂CH₂CH₂Y; Y = alkali-removable

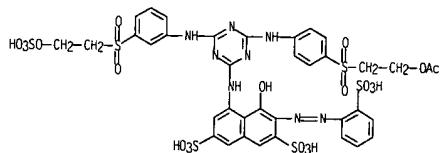
L5 ANSWER 35 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
group], useful for dyeing or printing on fibrous materials to give good fastness and color depth, are prep. The reaction of cyanuric chloride with I and p- and m-(H₂N)(C₆H₄)SO₂CH₂CH₂SO₃H gave I (A1 = m-C₆H₄; A2 = p-C₆H₄; D = o-C₆H₄SO₃H; R1, R2 = H; Z1, Z2 = SO₂CH₂CH₂SO₃H; SO₃H is meta to NH) which dyed cotton in a deep red shade.

IT 115657-88-0P 115658-16-7P

RL: PREP (Preparation)
(manuf. of, as red reactive azo dye)

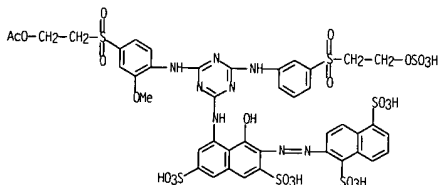
RN 115657-88-0 CAPLUS

CN 2,7-Naphthalenedisulfonic acid, 5-[[[4-[[[2-(acetoxy)ethyl]sulfonyl]phenyl]amino]-6-[[[3-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-4-hydroxy-3-[(2-sulphenyl)azo]- (9CI) (CA INDEX NAME)



RN 115658-16-7 CAPLUS

CN 1,5-Naphthalenedisulfonic acid, 2-[[[8-[[[4-[[[2-(acetoxy)ethyl]sulfonyl]sulfonyl]-2-methoxyphenyl]amino]-6-[[[3-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-1-hydroxy-3,6-disulfo-2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)

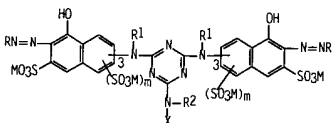


L5 ANSWER 36 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1988:114197 CAPLUS
DOCUMENT NUMBER: 108:114197
TITLE: Reactive disazo dyes
INVENTOR(S): Hibara, Toshio
PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

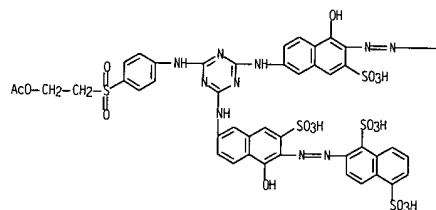
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62132967	A2	19870516	JP 1985-273343	19851206
JP 06019045	B4	19940316		

PRIORITY APPLN. INFO.: JP 1985-273343 19851206
OTHER SOURCE(S): CASREACT 108:114197
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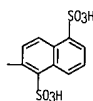


L5 ANSWER 36 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
INDEX NAME)

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ABSTRACT:

The title dyes, which can be used for cellulose and N-contg. fibers in the one-bath-one-step dyeing of polyester blends, and which have the free-acid form I [M = H, alkali metal; R = benzene or naphthalene diazo residue; R1 = H, lower alkyl; R2 = H, (un)substituted lower alkyl; X = (un)substituted phenylene, (un)substituted naphthylene; m = 0, 1], are prep. Thus, 6-(4,6-dichloro-s-triazin-2-ylamino)-2-(2-sulfophenylazo)-1-naphthol-3-sulfonic acid was condensed with 6-amino-2-(2-sulfophenylazo)-1-naphthol-3-sulfonic acid and then with m-MeNH₂C₆H₄SO₂CH₂CH₂SO₃H, and salted out with KCl to give I (3,3'-bonding, M = K, R = 2-C₆H₄SO₃H, R1 = H, R2 = Me, X = 3-C₆H₄SO₂CH₂CH₂SO₃H, m = 0), deep orange on cotton.

IT 113276-54-3P

RL: PREP (Preparation)
(manuf. of, as reactive dye for one-bath-one-step-dyeing of polyester fiber blends)

RN 113276-54-3 CAPLUS

CN 1,5-Naphthalenedisulfonic acid, 2,2'-[[[6-[[[2-(acetoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazine-2,4-diy]]bis[imino(1-hydroxy-3-sulfo-6,2-naphthalenediyl)azo]]bis- (9CI) (CA

L5 ANSWER 37 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1988:7492 CAPLUS
 DOCUMENT NUMBER: 108:7492
 TITLE: Water-soluble reactive disazo compounds
 INVENTOR(S): Meininger, Fritz; Steuernagel, Hans Helmut
 PATENT ASSIGNEE(S): Hoechst A.-G., Fed. Rep. Ger.
 SOURCE: Ger. Offen., 16 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3603101	A1	19870806	DE 1986-3603101	19860201
IN 168981	A	19910803	IN 1987-CA48	19870115
EP 231836	A2	19870812	EP 1987-100970	19870123
EP 231836	A3	19870930		
EP 231836	B1	19891213		
R: BE, CH, DE, FR, GB, IT, LI				
JP 62192466	A2	19870824	JP 1987-18776	19870130
BR 8700419	A	19871208	BR 1987-419	19870130
PRIORITY APPLN. INFO.:			DE 1986-3603101	19860201

GRAPHIC IMAGE:

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

ABSTRACT:

The title compds. I [A = (un)substituted phenylene; D = 4,8-disulfo-2-naphthyl, 4,6,8-trisulfo-2-naphthyl, 2,5-disulfo-phenyl; R1, R3 = H, C1-4 alkyl, C1-4 alkoxy, NHCONH2, C2-5 alkanoylamino; R2 = H, C1-4 alkyl, C1-4 alkoxy; Y = CH:CH2, CH2CH2R4; R4 = alkali-eliminatable substituent], useful for dyeing or printing hydroxyl and/or carbonamide group-contg. materials, are prepd. Thus, II was diazotized and coupled with aniline-omega-methanesulfonic acid Na salt, and the intermediate hydrolyzed and allowed to react with a Na salt soln. of the monocondensate of cyanuric chloride and 4-H2NC6H4SO2(CH2)2OSO3H; the condensate was pptd. with NaCl forming III, .lambda.max (H2O) 386 nm, which dyed cotton in a strong reddish-yellow shade with good fastness.

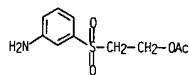
IT 3753-07-9

RL: RCT (Reactant); RACT (Reactant or reagent)
 (condensation of, with cyanuric chloride)

RN 3753-07-9 CAPLUS

CN Ethanol, 2-[(3-aminophenyl)sulfonyl]-, acetate (ester) (9CI) (CA INDEX

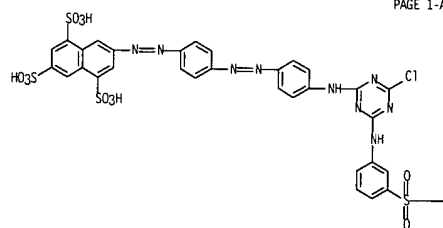
L5 ANSWER 37 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 NAME)



IT 111818-68-9DP, alkali metal salt
 RL: PREP (Preparation)
 (manuf. of, as orange reactive disazo dye)

RN 111818-68-9 CAPLUS

CN 1,3,5-Naphthalenetrisulfonic acid, 7-[[[4-[[[4-[[[3-[[[2-(acetyloxy)ethyl]sulfonyl]phenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]phenyl]azo]phenyl]azo]- (9CI) (CA INDEX NAME)



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L5 ANSWER 38 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1987:638572 CAPLUS
 DOCUMENT NUMBER: 107:238572
 TITLE: Monoazo reative dyes
 INVENTOR(S): Morimitsu, Toshihiko; Yoshikawa, Sadanobu; Omura, Takashi
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62167365	A2	19870723	JP 1986-9417	19860120
JP 06104780	B4	19941221		

PRIORITY APPLN. INFO.: JP 1986-9417 19860120

GRAPHIC IMAGE: For diagram(s), see printed CA Issue.

ABSTRACT:

The title dyes (.apprx.140), prepd. and used for dyeing cotton and rayon in orange shades with excellent buildup and fastness to Cl, light, and perspiration, comprise compds. I [R1, R2, R3 = H, (un)substituted lower alkyl; R4 = H, (un)substituted lower alkyl, Ph, sulfo-phenyl; B = II, III; R5 = H, sulfo, carboxy, Me, MeO, EtO; X = Cl, F, lower alkoxy, (un)substituted phenoxy, NR6R7; R6, R7 = H, (un)substituted lower alkyl, Ph, naphthyl, benzyl; A = (un)substituted phenylene, naphthylene; Z = SO2CH:CH2, SO2CH2CH2Y; Y = alkali-removable group]. Thus, a dye was prepd. by condensing cyanuric chloride with 2,4-diamino-1-sulfo-phenyl and m-(H2N)C6H4SO2CH2CH2OSO3H, diazotizing, and coupling with 2-amino-6-sulfonaphthalene.

IT 110845-07-3 110872-20-3

RL: USES (Uses)
 (dye, orange, for cellulosic fibers)

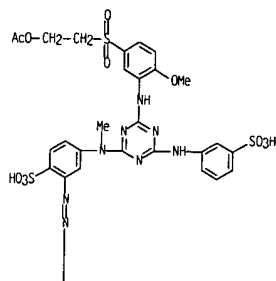
RN 110845-07-3 CAPLUS

CN 2-Naphthalenesulfonic acid, 5-[[[5-[[[5-[[[2-(acetyloxy)ethyl]sulfonyl]-2-methoxyphenyl]amino]-6-[(3-sulfo-phenyl)amino]-1,3,5-triazin-2-yl]methylamino]-2-sulfo-phenyl]azo]-6-amino- (9CI) (CA INDEX NAME)

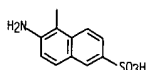
—CH2—CH2—OAc

L5 ANSWER 38 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

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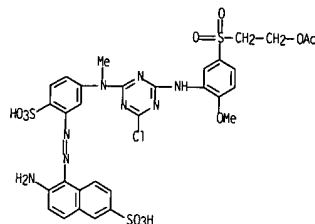


PAGE 2-A

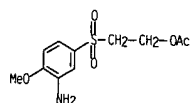


RN 110872-20-3 CAPLUS
 CN 2-Naphthalenesulfonic acid, 5-[[[5-[[[4-[[[2-(acetoxyethyl)sulfonyl]-2-methoxyphenyl]amino]-6-chloro-1,3,5-triazin-2-yl]methylamino]-2-sulphophenyl]azo]-6-amino- (9C1) (CA INDEX NAME)

L5 ANSWER 38 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



IT 108936-06-7
 RL: USES (Uses)
 (in reactive monoazo dye manuf.)
 RN 108936-06-7 CAPLUS
 CN Ethanol, 2-[(3-amino-4-methoxyphenyl)sulfonyl]-, acetate (ester) (9C1) (CA INDEX NAME)



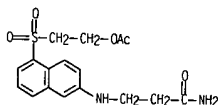
L5 ANSWER 39 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1987:600390 CAPLUS
 DOCUMENT NUMBER: 107:200390
 TITLE: Reactive monoazo dyes
 INVENTOR(S): Morimitsu, Toshihiko; Yoshikawa, Sadanobu; Omura, Takashi
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62167364	A2	19870723	JP 1986-8454	19860117
JP 06099639	B4	19941207		

PRIORITY APPL. INFO.: JP 1986-8454 19860117
 GRAPHIC IMAGE: For diagram(s), see printed CA Issue.

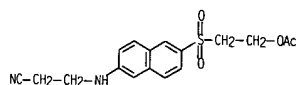
ABSTRACT:
 The reactive dyes [R1, R2 = H, (substituted) alkyl; B = (substituted) sulfonylphenylene or sulfonaphthylidenemethylene; X = Cl, F, alkoxy, (substituted) phenoxy, amino; Z = SO2CH:CH2, SO2CH2CH2Y (Y = alkali-removable group)] in the free acid form dye cellulosic fibers in red shades with good buildup and fastness. A 1:1:1 condensate of cyanuric chloride with 2,4-(H2N)2C6H3SO3H and 2-amino-8-[(2-sulfoethoxy)sulfonyl]naphthalene-6-sulfonic acid was diazotized and coupled with H acid to give a dye giving pure red shades on cotton.

IT 111133-82-5 111152-28-4
 RL: USES (Uses)
 (in manuf. of reactive azo dyes)
 RN 111133-82-5 CAPLUS
 CN Propanamide, 3-[[[5-[[[2-(acetoxyethyl)sulfonyl]-2-naphthalenyl]amino]- (9C1) (CA INDEX NAME)

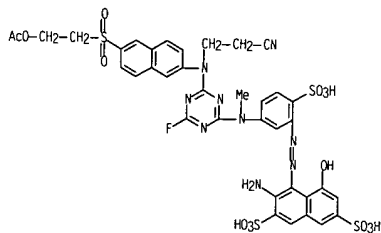


RN 111152-28-4 CAPLUS
 CN Propanenitrile, 3-[[[6-[[[2-(acetoxyethyl)sulfonyl]-2-naphthalenyl]amino]- (9C1) (CA INDEX NAME)

L5 ANSWER 39 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



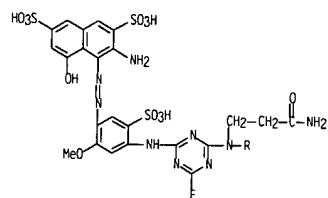
IT 111151-59-8 111151-76-9 111151-77-0
 111151-89-4 111152-07-9 111152-08-0
 RL: USES (Uses)
 (reactive dye, for cellulosic fibers)
 RN 111151-59-8 CAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 4-[[[5-[[[4-[[[2-(acetoxyethyl)sulfonyl]-2-naphthalenyl]amino]-6-fluoro-1,3,5-triazin-2-yl]methylamino]-2-sulphophenyl]azo]-3-amino-5-hydroxy- (9C1) (CA INDEX NAME)



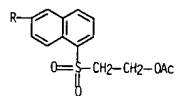
RN 111151-76-9 CAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 4-[[[4-[[[5-[[[2-(acetoxyethyl)sulfonyl]-2-naphthalenyl]amino]-3-amino-3-oxopropyl]amino]-6-fluoro-1,3,5-triazin-2-yl]amino]-2-methoxy-5-sulphophenyl]azo]-3-amino-5-hydroxy- (9C1) (CA INDEX NAME)

L5 ANSWER 39 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

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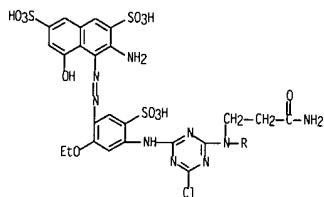


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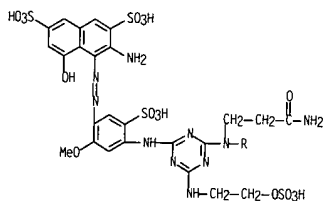
RN 111151-77-0 CAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 4-[[4-[[[5-[[2-(acetyloxy)ethyl]sulfonyl]-2-naphthalenyl](3-amino-3-oxopropyl)amino]-6-(3-chloro-1,3,5-triazin-2-yl)amino]-2-ethoxy-5-sulfonyl]azo]-3-amino-5-hydroxy- (9CI) (CA INDEX NAME)

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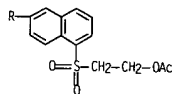


L5 ANSWER 39 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

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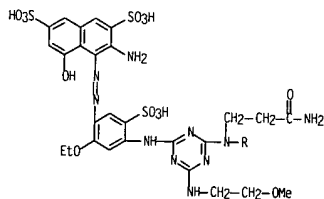


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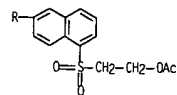
RN 111152-08-0 CAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 4-[[4-[[[5-[[[2-(acetyloxy)ethyl]sulfonyl]-2-naphthalenyl](3-amino-3-oxopropyl)amino]-6-[[2-(methoxyethyl)amino]-1,3,5-triazin-2-yl]amino]-2-ethoxy-5-sulfonyl]azo]-3-amino-5-hydroxy- (9CI) (CA INDEX NAME)

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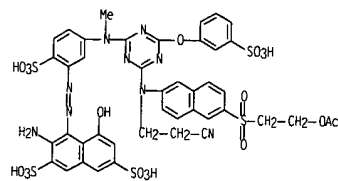


L5 ANSWER 39 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

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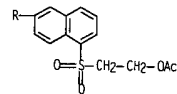
RN 111151-89-4 CAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 4-[[5-[[[4-[[[6-[[2-(acetyloxy)ethyl]sulfonyl]-2-naphthalenyl](2-cyanoethyl)amino]-6-(3-sulfonylphenoxy)-1,3,5-triazin-2-yl]methylamino]-2-sulfonyl]azo]-3-amino-5-hydroxy- (9CI) (CA INDEX NAME)



RN 111152-07-9 CAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 4-[[[4-[[[5-[[[2-(acetyloxy)ethyl]sulfonyl]-2-naphthalenyl](3-amino-3-oxopropyl)amino]-6-[[2-(sulfoxyethyl)amino]-1,3,5-triazin-2-yl]amino]-2-methoxy-5-sulfonyl]azo]-3-amino-5-hydroxy- (9CI) (CA INDEX NAME)

L5 ANSWER 39 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

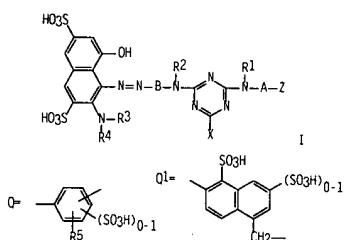
PAGE 2-A



L5 ANSWER 40 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1987:578035 CAPLUS
 DOCUMENT NUMBER: 107:178035
 TITLE: Reactive monoazo dyes
 INVENTOR(S): Morimitsu, Toshihiko; Yoshikawa, Sadanobu; Omura, Takashi
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokyo Koho, 26 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62167363	A2	19870723	JP 1986-8453	19860117
JP 07074311	B4	19950809		
US 4837310	A	19890606	US 1987-1852	19870109
EP 241104	A1	19871014	EP 1987-300238	19870112
EP 241104	B1	19900919		

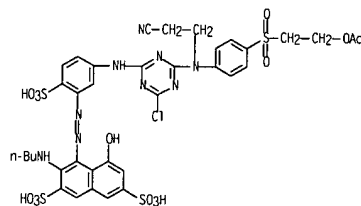
R: BE, CH, DE, ES, FR, GB, IT, LI, NL, SE
 PRIORITY APPLN. INFO.: JP 1986-7696 19860116
 JP 1986-8453 19860117
 OTHER SOURCE(S): CASREACT 107:178035
 GRAPHIC IMAGE:



ABSTRACT:

L5 ANSWER 40 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 The title dyes of free-acid form I were prepd. and used for dyeing cellulosic fibers in red shades with excellent buildup and various fastness properties, where R1, R2 = H, (un)substituted lower alkyl; R3 = H, (un)substituted lower alkyl; R4 = (un)substituted lower alkyl; A = (un)substituted phenylene, naphthylene; Z = SO2CH:CH2, SO2CH2CH2Y; Y = alkali-removable group; B = O, O1, R5 = H, sulfo, carboxy, Me, MeO, EtO; X = Cl, F, lower alkoxy, (un)substituted phenoxy, NR6R7; R6, R7 = H, (un)substituted Ph, naphthyl, benzyl, A 1:1:1 (molar) condensate of cyanuric chloride with 2,4-(H2N)2C6H3SO3H and m-H2NC6H4SO2CH2CH2SO3H in that order was diazotized, coupled with 2-(methylamino)-8-hydroxynaphthalene-3,6-disulfonic acid, and salted to give the corresponding I, pure red on cotton.

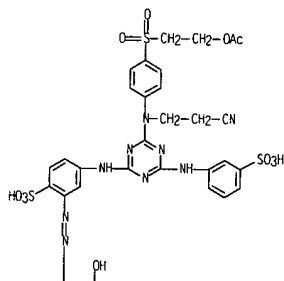
IT 110928-94-4 110948-55-5
 RL: TEM (Technical or engineered material use); USES (Uses)
 (dye for cellulosic fibers)
 RN 110928-94-4 CAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 4-[[[5-[[[4-[[[2-(acetyloxy)ethyl]sulfonyl]phenyl](2-cyanoethyl)amino]-6-chloro-1,3,5-triazin-2-yl]amino]-2-sulfonyl]jazo]-3-(butylamino)-5-hydroxy- (9C1)
 (CA INDEX NAME)



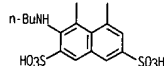
RN 110948-55-5 CAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 4-[[[5-[[[4-[[[2-(acetyloxy)ethyl]sulfonyl]phenyl](2-cyanoethyl)amino]-6-[[[3-sulfonyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfonyl]jazo]-3-(butylamino)-5-hydroxy- (9C1) (CA INDEX NAME)

L5 ANSWER 40 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

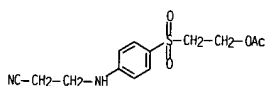
PAGE 1-A



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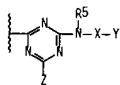
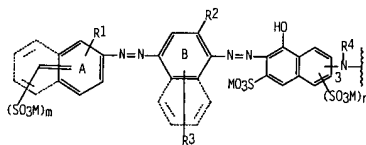
IT 110929-11-8
 RL: USES (Uses)
 (in manuf. of reactive monoazo dyes)
 RN 110929-11-8 CAPLUS
 CN Propanenitrile, 3-[[[4-[[[2-(acetyloxy)ethyl]sulfonyl]phenyl]amino]- (9C1)
 (CA INDEX NAME)



L5 ANSWER 41 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1987:516954 CAPLUS
 DOCUMENT NUMBER: 107:116954
 TITLE: Reactive disazo dyes
 INVENTOR(S): Hibara, Toshio; Sanada, Yukio
 PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokyo Koho, 8 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62084160	A2	19870417	JP 1985-225555	19851009
JP 06089264	B4	19941109		

PRIORITY APPLN. INFO.: JP 1985-225555 19851009
 OTHER SOURCE(S): CASREACT 107:116954
 GRAPHIC IMAGE:



ABSTRACT:
 Disazo compds. I (M = H, alkali metal; R1 = H, Cl, lower alkyl, alkoxy, NO2, carboxy; R2 = lower alkyl, alkoxy, sulfo; R3 = H, lower alkyl, alkoxy, ureido, AcNH, sulfo; R4 = H, lower alkyl; R5 = M, (un)substituted lower alkyl; Y = SO2CH:CH2, SO2CH2CH2W; W = alkali-removable group; X = (un)substituted phenylene, naphthylene; Z = Cl, F, Br, amine residue, MeO, PhO; m = 1-3; n = 0, 1; rings A and B may be benzene or naphthalene ring] were prepd. and used for dyeing cotton and wool. Thus, 2-naphthylamine-4,8-disulfonic acid, fwdarw, 2-aminobenzenesulfonic acid was diazotized, coupled with 1:1:1 condensate of 2-amino-5-hydroxynaphthalene-7-sulfonic acid, cyanuric chloride, and m-MeNHC6H4SO2CH2CH2SO3M, and salted (KCl) to give I (A = 4,8-disulfo-2-naphthyl; B = benzene; R1 = R3 = R4 = H; R2 = sulfo; R5 = Me; XY = C6H4SO2CH2CH2SO3H-m; Z = Cl; n = 0; 3-bonding; K salt), deep red on cotton and

L5 ANSWER 41 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
wool.

L5 ANSWER 41 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

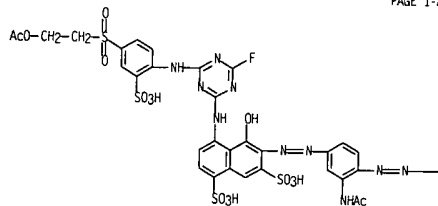
IT 110067-50-0

RL: TEM (Technical or engineered material use); USES (Uses)
(dye, for cotton)

RN 110067-50-0 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 6-[[[3-(acetylamino)-4-[[4-nitro-2-sulphophenyl]azo]phenyl]azo]-4-[[4-[[[2-(acetyloxy)ethyl]sulfonyl]-2-sulphophenyl]amino]-6-fluoro-1,3,5-triazin-2-yl]amino]-5-hydroxy- (9CI)
(CA INDEX NAME)

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PAGE 1-B



L5 ANSWER 42 OF 92 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1987:441686 CAPLUS
DOCUMENT NUMBER: 107:41686
TITLE: Reactive bifunctional monoazo dyes
INVENTOR(S): Omura, Takashi; Morimitsu, Toshihiko; Harada, Naoki; Takeshita, Akira
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61293264	A2	19861224	JP 1985-120829	19850603
JP 05051027	B4	19930730		

PRIORITY APPLN. INFO.: JP 1985-120829 19850603
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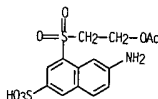
L5 ANSWER 42 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

IT 109059-45-2

RL: USES (Uses)
(condensation of, with azonaphthylaminotriazine chlorides)

RN 109059-45-2 CAPLUS

CN 2-Naphthalenesulfonic acid, 4-[[[2-(acetyloxy)ethyl]sulfonyl]-6-amino- (9CI) (CA INDEX NAME)

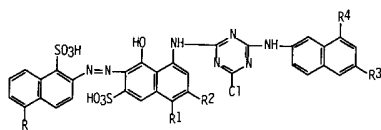
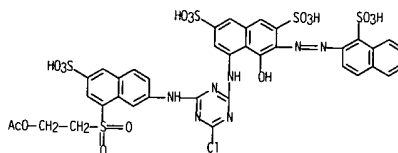


IT 109059-51-0P

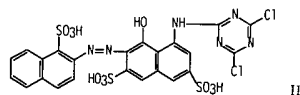
RL: PREP (Preparation)
(manuf. of, as bifunctional reactive azo dye for cotton)

RN 109059-51-0 CAPLUS

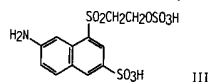
CN 2,7-Naphthalenedisulfonic acid, 5-[[[4-[[[2-(acetyloxy)ethyl]sulfonyl]-6-sulfo-2-naphthalenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]-4-hydroxy-3-[[[1-sulfo-2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)



I



II



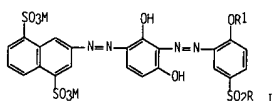
III

ABSTRACT:

Fabrics are dyed or printed with I (R, R1-R3 = H, SO3H where R1 = R2 .noteq. H and R1 = R2 .noteq. SO3H; R4 = SO2CH2CH2, SO2CH2CH2R5; R5 = alkali-removable group) or their salts. Thus, condensing II with III gave I (R = R1 = H, R2 = R3 = SO3H, R4 = SO2CH2CH2SO3H), having .lambda.max 560 nm, which dyed cotton in a red shade with good fastness.

L5 ANSWER 43 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1987:424802 CAPLUS
 DOCUMENT NUMBER: 107:24802
 TITLE: Metal complex disazo reactive dyes
 INVENTOR(S): Corso, Anthony J.; Meiningen, Fritz; Steuernagel, Hans
 Helmut
 PATENT ASSIGNEE(S): American Hoechst Corp., USA
 SOURCE: Eur. Pat. Appl., 22 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 212627	A1	19870304	EP 1986-111490	19860819
EP 212627	B1	19890531		
R: BE, CH, DE, FR, GB, IT, LI				
US 4760134	A	19880726	US 1985-770341	19850828
IN 166384	A	19900428	IN 1986-CA636	19860821
BR 8604090	A	19870414	BR 1986-4090	19860827
JP 62089771	A2	19870424	JP 1986-199184	19860827
JP 04078660	B4	19921211		
CA 1266046	A1	19900220	CA 1986-516893	19860827
PRIORITY APPLN. INFO.:			US 1985-770341	19850828
OTHER SOURCE(S):		CASREACT 107:24802		
GRAPHIC IMAGE:				

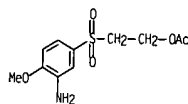


ABSTRACT:

The title 1:1 copper complex disazo compds. prepd. by dealkylating complexation of a Cu salt with I (M = H, mono- or divalent metal; Y = CH:CH2, Et group, beta.-substituted with an alkali-eliminatable group; R1 = OMe), and are useful for dyeing or textile printing of cellulose-contg. fibers. I is prepd. by coupling of diazotized aminonaphthalenedisulfonic acid with resorcinol, and coupling the monoazo intermediate with diazotized o-anisidines. Thus, 2-amino-4,8-naphthalenedisulfonic acid was diazotized and coupled with resorcinol, and the monoazo intermediate coupled with diazotized

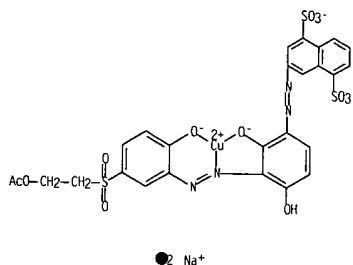
L5 ANSWER 43 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 2-amino-4-(vinylsulfonyl)anisole, the disazo intermediate hydrolyzed at pH 4-5.5, and subjected to dealkylating complexation with CuSO4.5H2O with NaOAc to form a 1:1 Cu-I (M = Na, R = CH:CH2, R1 = H) complex, which dyed cotton in a reddish-brown shade with good fastness.

IT 108936-06-7
 RL: USES (Uses)
 (coupling of diazotized, with (dihydroxyphenylazo)naphthalenedisulfonic acids)
 RN 108936-06-7 CAPLUS
 CN Ethanol, 2-[(3-amino-4-methoxyphenyl)sulfonyl]-, acetate (ester) (9CI) (CA INDEX NAME)



IT 108935-84-8P
 RL: PREP (Preparation)
 (manuf. of, as reactive brown dye for cotton)
 RN 108935-84-8 CAPLUS
 CN Cuprate(2-), [3-[[[3-[[[5-[[2-(acetyloxyethyl)sulfonyl]-2-hydroxyphenyl]azo]-2,4-dihydroxyphenyl]azo]-1,5-naphthalenedisulfonato(4-)]-], disodium (9CI) (CA INDEX NAME)

L5 ANSWER 43 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



L5 ANSWER 44 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1987:19970 CAPLUS
 DOCUMENT NUMBER: 106:19970
 TITLE: Water-soluble 1:2 chromium-azo compound complex dyes and their use
 INVENTOR(S): Sawamoto, Hirokazu; Onura, Takashi; Kashiwano, Yutaka; Harada, Naoki; Takeshita, Akira
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61106671	A2	19860524	JP 1984-229080	19841030
PRIORITY APPLN. INFO.:			JP 1984-229080	19841030
GRAPHIC IMAGE:				

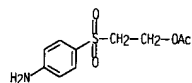
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

ABSTRACT:

Sym. 1:2 Cr complex azo dyes I (R, R2 = H, (un)substituted lower alkyl; R1 = SO2CH:CH, SO2CH2CH2R6; R3 = H, SO3R5; R4 = H, lower alkyl, alkoxy, SO3R5, AcNH; R5 = H, alkali metal, alk. earth metal; R6 = alkali-removable group; Z = (un)substituted phenylene, naphthylene] are prepd. and used for dyeing and printing of cotton fabrics. Thus, 5-(acetylamino)anthranilic acid was diazotized, coupled with 2-amino-5-hydroxy-1,7-naphthalenedisulfonic acid, neutralized, mixed with KCr(SO4)2 and NaOAc, refluxed, cooled, and mixed with NaCl to form a cryst. ppt. (II). Cyanuric chloride was suspended in water, condensed with 4-(N-ethylamino)phenyl, beta.-sulfoethyl sulfone, mixed with the II, and heated to 50-60.degree. for 10 h to obtain III (lambda.max 535 nm). Thus, 10 parts Glauber's salt and 10 parts cotton were added to 200 parts water contg. 0.1-0.6 part III, then 5 parts Na2CO3 was added and the mixt. kept at 50.degree. for 1 h producing a brown-colored cotton with good build-up property and good color fastness.

IT 73567-87-0
 RL: USES (Uses)
 (condensation of, with chlorotriazines)
 RN 73567-87-0 CAPLUS
 CN Ethanol, 2-[(4-aminophenyl)sulfonyl]-, acetate (ester) (9CI) (CA INDEX NAME)

L5 ANSWER 44 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



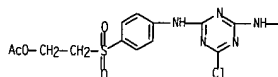
IT 105992-75-4P

RL: IMF (Industrial manufacture): PREP (Preparation)
(prepn. of. for printing of cotton fabrics)

RN 105992-75-4 CAPLUS

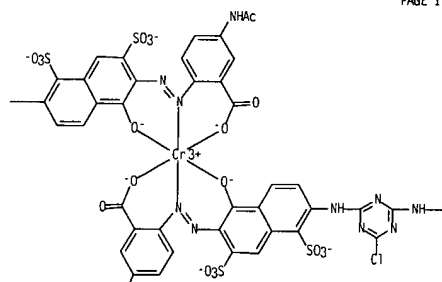
CN Chromate(5-), bis[5-(acetylamino)-2-[[6-[[4-[[4-[[2-(acetyloxy)ethyl]sulfonyl]phenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]-1-hydroxy-3,5-disulfo-2-naphthalenyl]azo]benzoato(4-)]-, pentasodium (9CI)
(CA INDEX NAME)

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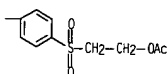


L5 ANSWER 44 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

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PAGE 1-C



L5 ANSWER 44 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

PAGE 2-A

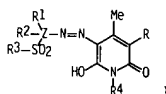


PAGE 2-B



L5 ANSWER 45 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1986:628488 CAPLUS
 DOCUMENT NUMBER: 105:228488
 TITLE: Water-soluble pyridone monoazo dyes
 INVENTOR(S): Segal, Marcos
 PATENT ASSIGNEE(S): Hoechst A.-G., Fed. Rep. Ger.
 SOURCE: Ger. Offen., 41 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3427188	A1	19860130	DE 1984-3427188	19840724
EP 169457	A1	19860129	EP 1985-108702	19850712
EP 169457	B1	19880302		
R. CH. DE, FR, GB, IT, LI				
IN 164505	A	19890401	IN 1985-CA531	19850717
US 4659807	A	19870421	US 1985-757687	19850722
JP 61037848	A2	19860222	JP 1985-161335	19850723
JP 04043114	B4	19920715		
BR 8503494	A	19860415	BR 1985-3494	19850723
IN 169068	A	19910831	IN 1988-CA999	19881202
IN 169337	A	19910928	IN 1989-CA683	19890821
PRIORITY APPLN. INFO.:				
			DE 1984-3427188	19840724
			IN 1985-CA531	19850717
			US 1988-206072	19880613
			IN 1988-CA999	19881202
			WO 1989-US2118	19890518
OTHER SOURCE(S): CASREACT 105:228488				
GRAPHIC IMAGE:				

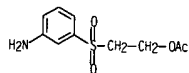


ABSTRACT:

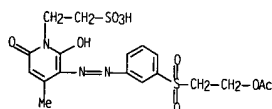
Water-sol. I (R = H, CONH2; R1 = H, C1-4 alkyl, C1-4 alkoxy, OH, NO2, halogen; R2 = H, C1-4 alkyl, C1-4 alkoxy, halogen, CO2H, SO3H; R3 = vinyl or precursor; R4 = C1-4 alkyl substituted with OSO3H, OPO3H2, CO2H, or SO3H; Z = benzene, naphthalene, benzanilide, or diphenylamine residue) are useful for dyeing or printing HO- and/or amide group-contg. fabrics. Thus, 4-(beta.-sulfaetoethylsulfonyl)aniline was diazotized and coupled with 6-hydroxy-4-methyl-1-(2-sulfoethyl)-2-pyridone, forming I (R = R1 = R2 = H, R3

L5 ANSWER 45 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 = (CH₂)₂SO₃H, R₄ = (CH₂)₂SO₃H, Z = 1,4-phenylene), λ_{max}(H₂O) 411 nm,
 which dyed cotton a dark greenish-yellow shade with good lightfastness.

IT 3753-07-9
 RL: USES (Uses)
 (coupling of diazotized, with hydroxypyridones)
 RN 3753-07-9 CAPLUS
 CN Ethanol, 2-[(3-aminophenyl)sulfonyl]-, acetate (ester) (9C1) (CA INDEX NAME)

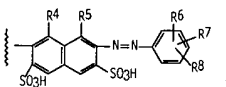
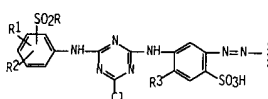


IT 105513-07-3P
 RL: PREP (Preparation)
 (manuf. of, as yellow dye for cotton)
 RN 105513-07-3 CAPLUS
 CN 1-(2H)-Pyridineethanesulfonic acid, 5-[[3-[[2-(acetyloxyethyl)sulfonyl]phenyl]azo]-6-hydroxy-4-methyl-2-oxo- (9C1) (CA INDEX NAME)



L5 ANSWER 46 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1984:593671 CAPLUS
 DOCUMENT NUMBER: 101:193671
 TITLE: Bifunctional reactive dyes
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

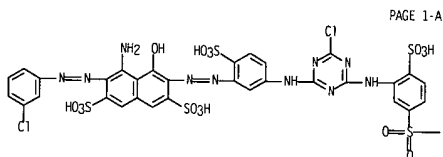
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59133261	A2	19840731	JP 1983-7614	19830119
PRIORITY APPL. INFO.:			JP 1983-7614	19830119
GRAPHIC IMAGE:				



ABSTRACT:
 The title dyes of free-acid form I [R = vinyl, CH₂CH₂SR; R₁, R₂ = H, Me, MeO, Cl, CO₂H, SO₃H; R₃ = H, SO₃H, Me; R₄, R₅ = OH, NH₂ (R₄ noteq. R₅); R₆, R₇, R₈ = H, Cl, Me, MeO, SO₃H, CO₂H; R₉ = anionic leaving group excluding sulfato] were prepd. and used for dyeing cotton in fast navy blue shades. Thus, aniline-4-sulfonic acid [121-57-3] was diazotized, coupled with 1-amino-8-hydroxynaphthalene-3,6-disulfonic acid mono-Na salt [5460-09-3], and salted. Cyanuric chloride [108-77-0] was condensed with m-phenylenediaminesulfonic acid [88-63-1] and then with m-(2-thiosulfoethyl)sulfonylaniline [4726-00-5], and the resulting condensate was diazotized, coupled with the above salted product, and salted to give I (R = CH₂CH₂SO₃H, R₁ = R₂ = R₃ = R₆ = R₇ = H, R₄ = OH, R₅ = NH₂, R₈ = 4-SO₃H; Na salt) [92815-47-9].

IT 92815-39-9

L5 ANSWER 46 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 RL: USES (Uses)
 (dye, navy blue, for cotton)
 RN 92815-39-9 CAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 3-[[5-[[4-[[5-[[2-(acetyloxyethyl)sulfonyl]-2-sulphonyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]-2-sulphonyl]azo]-5-amino-6-[(3-chlorophenyl)azo]-4-hydroxy- (9C1) (CA INDEX NAME)

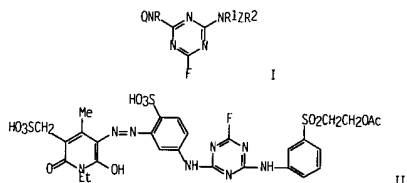


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L5 ANSWER 47 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1983:577499 CAPLUS
 DOCUMENT NUMBER: 99:177499
 TITLE: Fluorotriazine reactive dyes
 INVENTOR(S): Markert, Juergen; Seiler, Herbert
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
 SOURCE: Eur. Pat. Appl., 55 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 85025	A2	19830803	EP 1983-810017	19830117
EP 85025	A3	19840502		
EP 85025	B1	19861015		
R: CH, DE, FR, GB, LI				
JP 58164650	A2	19830929	JP 1983-7482	19830121
JP 03055513	B4	19910823		
PRIORITY APPL. INFO.:			CH 1982-369	19820121
GRAPHIC IMAGE:				



ABSTRACT:
 Reactive dyes esp. suitable for exhaust dyeing processes are represented by general structure I, where Q is an org. dye residue; R = H or C1-4 alkyl; R₁ = H, Me, or Et; Z = aliph. or arom. bridging group; R₂ = SO₂CH₂CH₂X or (if Z is arom.) NR₃SO₂CH₂CH₂X or CHR₃SO₂CH₂CH₂X; X = O₂CR₄ or O₃SR₄; R₃ = H, Me, or Et; and R₄ = optionally substituted aliph. or arom. group. Thus, condensation of cyanuric fluoride [675-14-9] with 5-[(5-amino-2-sulphonyl)azo]-1-ethyl-6-hydroxy-4-methyl-3-(sulfomethyl)-2-pyridone [60256-61-3] at 0-5 degree /pH 6-7 and then with 3-H₂N-C₆H₄-SO₂-CH₂-OAc [3753-07-9] at 20-25 degree /pH 6.0-6.3 gave II [87570-39-6] which dyed cotton and rayon clear greenish yellow shades. Other I were also prepd.

L5 ANSWER 47 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

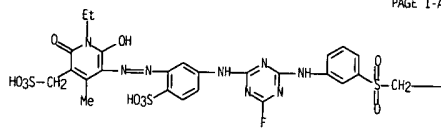
IT 87562-22-9P 87570-38-5P

RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(manuf. of, as reactive dye for cotton)

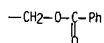
RN 87562-22-9 CAPLUS

CN 3-Pyridinemethanesulfonic acid, 5-[[5-[[4-[[3-[[2-(benzoyloxy)ethyl]sulfonyl]phenyl]amino]-6-fluoro-1,3,5-triazin-2-yl]amino]-2-sulfonylphenyl]azo]-1-ethyl-1,2-dihydro-6-hydroxy-4-methyl-2-oxo- (9CI) (CA INDEX NAME)



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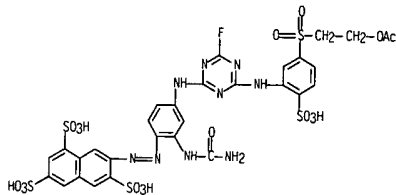
PAGE 1-B



RN 87570-38-5 CAPLUS

CN 1,3,6-Naphthalenetrisulfonic acid, 7-[[4-[[4-[[5-[[2-(acetyloxy)ethyl]sulfonyl]phenyl]amino]-6-fluoro-1,3,5-triazin-2-yl]amino]-2-(aminocarbonyl)amino]phenyl]azo]- (9CI) (CA INDEX NAME)

L5 ANSWER 47 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



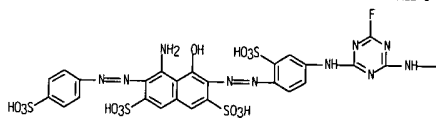
IT 87570-37-4P

RL: PREP (Preparation)

(manuf. of, as reactive dye for cotton and rayon)

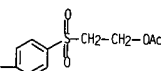
RN 87570-37-4 CAPLUS

CN 2,7-Naphthalenedisulfonic acid, 3-[[4-[[4-[[2-(acetyloxy)ethyl]sulfonyl]phenyl]amino]-6-fluoro-1,3,5-triazin-2-yl]amino]-2-sulfonylphenyl]azo]-5-amino-4-hydroxy-6-[(4-sulfonylphenyl)azo]- (9CI) (CA INDEX NAME)



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IT 87570-39-6P

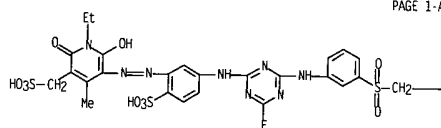
RL: PREP (Preparation)

(manuf. of, as reactive dye for cotton and rayon fibers)

RN 87570-39-6 CAPLUS

L5 ANSWER 47 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

CN 3-Pyridinemethanesulfonic acid, 5-[[5-[[4-[[3-[[2-(acetyloxy)ethyl]sulfonyl]phenyl]amino]-6-fluoro-1,3,5-triazin-2-yl]amino]-2-sulfonylphenyl]azo]-1-ethyl-1,2-dihydro-6-hydroxy-4-methyl-2-oxo- (9CI) (CA INDEX NAME)



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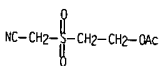
IT 87562-24-1P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

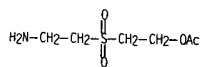
(prepn. and redn. of)

RN 87562-24-1 CAPLUS

CN Acetonitrile, [[2-(acetyloxy)ethyl]sulfonyl]- (9CI) (CA INDEX NAME)



L5 ANSWER 47 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



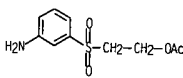
IT 3753-07-9 87562-21-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with aminodifluorotriazine deriv.. in reactive dye manuf.)

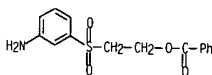
RN 3753-07-9 CAPLUS

CN Ethanol, 2-[(3-aminophenyl)sulfonyl]-, acetate (ester) (9CI) (CA INDEX NAME)



RN 87562-21-8 CAPLUS

CN Ethanol, 2-[(3-aminophenyl)sulfonyl]-, benzoate (ester) (9CI) (CA INDEX NAME)



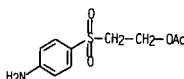
IT 73567-87-0

RL: RCT (Reactant); RACT (Reactant or reagent)

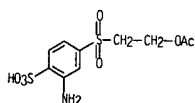
(reaction of, with aminodifluorotriazine deriv.. in reactive dye manuf.)

RN 73567-87-0 CAPLUS

CN Ethanol, 2-[(4-aminophenyl)sulfonyl]-, acetate (ester) (9CI) (CA INDEX NAME)



L5 ANSWER 47 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 IT 87562-23-0
 RL: RCT (Reactant): RACT (Reactant or reagent)
 (reaction of, with cyanuric fluoride, in reactive dye manuf.)
 RN 87562-23-0 CAPLUS
 CN Benzenesulfonic acid, 4-[[2-(acetoxyethyl)sulfonyl]-2-amino- (9CI) (CA INDEX NAME)



L5 ANSWER 48 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1982:182775 CAPLUS
 DOCUMENT NUMBER: 96:182775
 TITLE: Xanthene compounds
 INVENTOR(S): Cournoyer, Richard L.; Foley, James W.
 PATENT ASSIGNEE(S): Polaroid Corp., USA
 SOURCE: U.S., 8 pp. Cont.-in-part of U.S. 4,258,119.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4311847	A	19820119	US 1980-194462	19801006
US 4258119	A	19810324	US 1979-106938	19791226

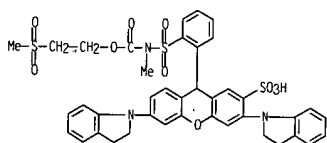
PRIORITY APPLN. INFO.: US 1979-106938 19791226
 GRAPHIC IMAGE:

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

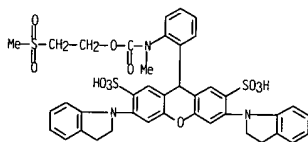
ABSTRACT:
 PH-sensitive light-screening dyes I (R = alkyl, n = 0 or 1) for photog. films are prep'd. Thus, II [77545-46-1] in AcOH was heated to 50-60.degree., mixed with Zn dust, heated 5 h at 60.degree. to give III (R = R1 = R2 = H) [77545-47-2], treated with ClC(=O)CH2CH2SO2Me [81189-38-0] in pyridine, and poured into water contg. NaCl to give III (R = CO2CH2CH2SO2Me, R1 = R2 = H) [77545-48-3]. A suspension of the Me sulfone in Ac2O was treated dropwise with ClSO3H and stirred overnight to give III (R = CO2CH2CH2SO2Me, R1 = R2 = SO3H) [81189-39-1] which was refluxed in MeOH 15 min, treated with o-chloranil, and stirred overnight to give I (R = Me) [81196-32-9].

IT 77545-58-5P 81189-39-1P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and ring closure of)
 RN 77545-58-5 CAPLUS
 CN 9H-Xanthene-2-sulfonic acid, 3,6-bis(2,3-dihydro-1H-indol-1-yl)-9-[2-[[methyl[[2-(methylsulfonyl)ethoxy]carbonyl]amino]sulfonyl]phenyl]- (9CI) (CA INDEX NAME)

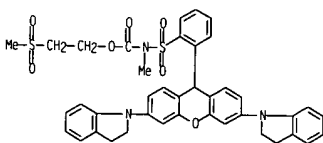
L5 ANSWER 48 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 81189-39-1 CAPLUS
 CN 9H-Xanthene-2-sulfonic acid, 3,6-bis(2,3-dihydro-1H-indol-1-yl)-9-[2-[[methyl[[2-(methylsulfonyl)ethoxy]carbonyl]amino]phenyl]- (9CI) (CA INDEX NAME)

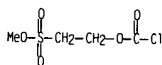


IT 77545-48-3P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and sulfonation of)
 RN 77545-48-3 CAPLUS
 CN Carbamic acid, [[2-[3,6-bis(2,3-dihydro-1H-indol-1-yl)-9H-xanthene-9-yl]phenyl]sulfonyl]methyl-, 2-(methylsulfonyl)ethyl ester (9CI) (CA INDEX NAME)



IT 81189-38-0

L5 ANSWER 48 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with methylaminosulfonylxanthine derivs.)
 RN 81189-38-0 CAPLUS
 CN Ethanesulfonic acid, 2-[[chlorocarbonyl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 49 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1982:164161 CAPLUS
 DOCUMENT NUMBER: 96:164161
 TITLE: Xanthene compounds
 INVENTOR(S): Cournoyer, Richard L.; Foley, James W.
 PATENT ASSIGNEE(S): Polaroid Corp., USA
 SOURCE: U.S., 11 pp. Cont. in part of U.S. Ser. No. 169,834.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4307017	A	19811222	US 1980-194463	19801006
US 4304834	A	19811208	US 1980-169834	19800717
PRIORITY APPLN. INFO.:			US 1979-106901	19791226
			US 1980-169834	19800717

GRAPHIC IMAGE:

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

ABSTRACT:

PH-sensitive compds. (I) are prepd., where R = C1-7 alkyl, R1 is an electron-withdrawing group having a pos. sigma value >0.6, R2 = H or C1-4 alkyl, R3 = C1-4 alkyl, n = 0 or 1, and R1 is ortho, meta, or para to the N atom. I, which are colored at pH < 6 and colorless in aq. basic media, are useful as light-screening dyes in Ag halide-sensitized photog. film. Thus, reaction of sulfonefluorescein dichloride [77545-45-0] with p-Me2NSO2C6H4NH2 [1709-59-7] to form I [81247-93-0], N-methylation (NaH, MeI), reaction with PC15 to form the corresponding sulfonyl chloride [81232-26-0], and treatment with NH3 gave (R = Me, R1 = p-Me2NSO2, R2 = H) [81104-03-2]. Several other I were similarly prepd. III were obtained by ring-opening redn. of I to the leuco deriv., acylation of the sulfonamide group, sulfonation (ClSO3H) of the product, and oxidative ring closure.

IT 80039-12-9P 80039-13-0P

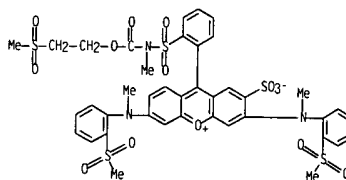
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and ring closure of)

RN 80039-12-9 CAPLUS

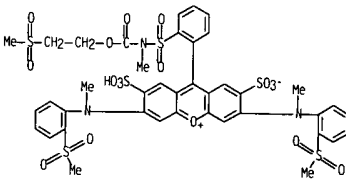
CN Xanthylium, 9-[2-[[methyl[[2-(methylsulfonyl)ethoxy]carbonyl]amino]sulfonyl]phenyl]-3,6-bis[methyl(2-(methylsulfonyl)phenyl)amino]-2-sulfo-, inner salt (9C1) (CA INDEX NAME)

L5 ANSWER 49 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 80039-13-0 CAPLUS

CN Xanthylium, 9-[2-[[methyl[[2-(methylsulfonyl)ethoxy]carbonyl]amino]sulfonyl]phenyl]-3,6-bis[methyl(2-(methylsulfonyl)phenyl)amino]-2,7-disulfo-, inner salt (9C1) (CA INDEX NAME)



IT 81104-12-3P

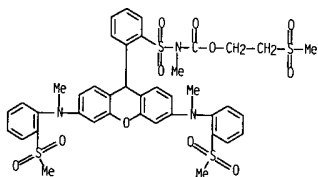
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and sulfonation of)

RN 81104-12-3 CAPLUS

CN Carbamic acid, [[2-[3,6-bis[methyl(2-(methylsulfonyl)phenyl)amino]-9H-xanthen-9-yl]phenyl]sulfonyl]methyl-, 2-(methylsulfonyl)ethyl ester (9C1) (CA INDEX NAME)

L5 ANSWER 49 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



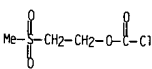
IT 53298-29-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with (sulfonylphenyl)xanthene deriv.)

RN 53298-29-6 CAPLUS

CN Carbonochloridic acid, 2-(methylsulfonyl)ethyl ester (9C1) (CA INDEX NAME)

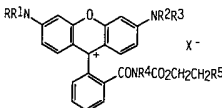


L5 ANSWER 50 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1982:53846 CAPLUS
 DOCUMENT NUMBER: 96:53846
 TITLE: 3,6-Di(alkyl/phenyl)amino-9-carboxamidophenylxanthenes
 INVENTOR(S): Cincotta, Louis; Foley, James W.
 PATENT ASSIGNEE(S): Polaroid Corp., USA
 SOURCE: U.S., 13 pp. Division of U.S. Ser. No. 106,902.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4290955	A	19810922	US 1980-154620	19800530
US 4316950	A	19820223	US 1979-106902	19791226
PRIORITY APPLN. INFO.:			US 1979-106902	19791226

GRAPHIC IMAGE:



ABSTRACT:

The title compds. (I; R, R2 = H, C1-4 alkyl; R1, R3, R4 = C1-4 alkyl; Ph; R5 = electron-withdrawing group with pos. sigma value >0.6 as defined by Hammett's equation; X- = anion) are prepd. and are used as filter dyes in photog. products and processes. Thus, I (R, R1, R2, R3 = Et, R4 = Me, R5 = SO2Me, X = I) (II) [80342-09-2] was prepd. by the successive reaction of Et ester of Rhodamine B [2390-63-8] with methylamine [74-89-5], isolation of the lactam intermediate [80318-90-7], redn., treatment with BuLi and ClCO2CH2CH2SO2Me [53298-29-6], and conversion of the leuco precursors [80318-91-8]. It was incorporated into an image-receiving layer to give a lambda.max 568 and when treated with 1N NaOH it was rendered colorless for .10sec.96 h.

IT 80342-09-2

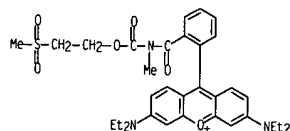
RL: USES (Uses)

(filter dye, for photog. films, manuf. of)

RN 80342-09-2 CAPLUS

CN Xanthylium, 3,6-bis(diethylamino)-9-[2-[[methyl[[2-(methylsulfonyl)ethoxy]carbonyl]amino]carbonyl]phenyl]-, iodide (9C1) (CA INDEX NAME)

L5 ANSWER 50 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



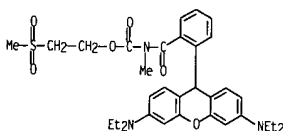
● 1-

IT 80318-91-8P

RL: IMF (Industrial manufacture): RCT (Reactant): PREP (Preparation): RACT
(Reactant or reagent)
(prepn. and oxidn. of)

RN 80318-91-8 CAPLUS

CN Carbamic acid, [2-[3,6-bis(diethylamino)-9H-xanthen-9-yl]benzoyl]methyl-,
2-(methylsulfonyl)ethyl ester (9C1) (CA INDEX NAME)

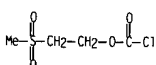


IT 53298-29-6

RL: RCT (Reactant): RACT (Reactant or reagent)
(reaction of, with acetanilide deriv.)

RN 53298-29-6 CAPLUS

CN Carbonochloridic acid, 2-(methylsulfonyl)ethyl ester (9C1) (CA INDEX
NAME)



L5 ANSWER 51 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1982:53845 CAPLUS

DOCUMENT NUMBER: 96:53845

TITLE: Triarylmethane dyes and photographic products and
processes in which they are used

INVENTOR(S): Foley, James Walter

PATENT ASSIGNEE(S): Polaroid Corp., USA

SOURCE: Eur. Pat. Appl., 160 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 32036	A1	19810715	EP 1980-304642	19801219
EP 32036	B1	19840321		
R: DE, FR, GB, NL				
US 4277406	A	19810707	US 1979-106899	19791226
US 4277407	A	19810707	US 1979-106900	19791226
US 4283538	A	19810811	US 1979-106904	19791226
US 4282160	A	19810804	US 1980-152181	19800522
US 4304833	A	19811208	US 1980-152189	19800522
PRIORITY APPLN. INFO.:				
			US 1979-106520	19791226
			US 1979-106899	19791226
			US 1979-106900	19791226
			US 1979-106904	19791226
			US 1980-152181	19800522
			US 1980-152189	19800522

GRAPHIC IMAGE: For diagram(s), see printed CA Issue.

ABSTRACT:

The prepn. and use of light-screening triarylmethane dyes of general structure I are described, where A is a Ph or naphthyl moiety, B is a 4-oxophenyl or 4-oxo-1-naphthyl moiety, and R is a nonnucleophilic group that cannot add to the central C atom but in alk. soln. undergoes irreversible cleavage with base to provide a nucleophilic moiety that adds to the central C atom to form a colorless ring-closed compd. I are antihalation or color correcting filter dyes for diffusion transfer film. A typical dye, II [79378-12-4], was prepd. by Me4NCl-catalyzed reaction of Me iodide [74-88-4] with 2-[[2-(methylsulfonyl)ethoxy]carbonyl]-3-(3,5-dimethyl-4-hydroxyphenyl)-3-(4-morpholinophenyl)-2,3-dihydrobenzo[d]isothiazole 1,1-dioxide [***70367-94-1***] in H2O-CH2Cl2 contg. K2CO3. A 2nd typical dye, III [79378-13-5], was prepd. by LiAlH4 reduct. of phenolphthalein [77-09-8] to the corresponding phthalan deriv. [47252-88-0], followed by ring-opening esterification with HOAc in the presence of H2SO4. Multicolor photosensitive elements contg. I were also described.

IT 70367-94-1 70367-99-6 70368-09-1

74052-44-1 75077-76-8 75077-78-0

79377-59-6 79377-73-4 79377-74-5

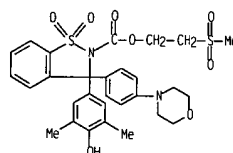
RL: RCT (Reactant): RACT (Reactant or reagent)

L5 ANSWER 51 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

L5 ANSWER 51 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
(methylation of, by Me iodide, ring cleavage in)

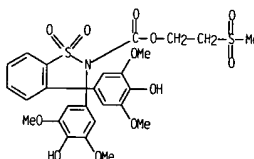
RN 70367-94-1 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-(4-hydroxy-3,5-dimethylphenyl)-3-[4-(4-morpholinyl)phenyl]-, 2-(methylsulfonyl)ethyl ester, 1,1-dioxide (9C1) (CA INDEX NAME)



RN 70367-99-6 CAPLUS

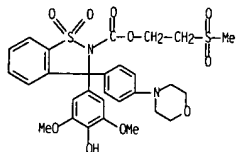
CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3,3-bis(4-hydroxy-3,5-dimethoxyphenyl)-, 2-(methylsulfonyl)ethyl ester, 1,1-dioxide (9C1) (CA INDEX NAME)



RN 70368-09-1 CAPLUS

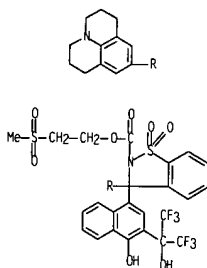
CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-(4-hydroxy-3,5-dimethoxyphenyl)-3-[4-(4-morpholinyl)phenyl]-, 2-(methylsulfonyl)ethyl ester, 1,1-dioxide (9C1) (CA INDEX NAME)

L5 ANSWER 51 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 74052-44-1 CAPLUS

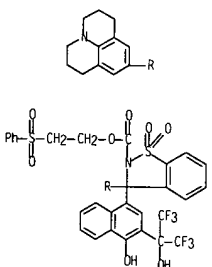
CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-[4-hydroxy-3-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]-1-naphthalenyl]-3-(2,3,6,7-tetrahydro-1H,5H-benzo[*ij*]quinolizin-9-yl)-, 2-(methylsulfonyl)ethyl ester, 1,1-dioxide (9CI) (CA INDEX NAME)



RN 75077-76-8 CAPLUS

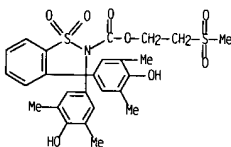
CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-[4-bis[2-[(tetrahydro-2H-pyran-2-yl)oxy]ethyl]amino]phenyl]-3-[4-hydroxy-3-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]-1-naphthalenyl]-, 2-(methylsulfonyl)ethyl ester, 1,1-dioxide (9CI) (CA INDEX NAME)

L5 ANSWER 51 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 79377-59-6 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3,3-bis(4-hydroxy-3,5-dimethylphenyl)-, 2-(methylsulfonyl)ethyl ester, 1,1-dioxide (9CI) (CA INDEX NAME)

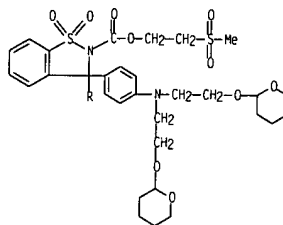


RN 79377-73-4 CAPLUS

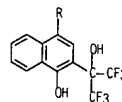
CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-(4-hydroxy-3,5-dimethoxyphenyl)-3-(2,3,6,7-tetrahydro-1H,5H-benzo[*ij*]quinolizin-9-yl)-, 2-(methylsulfonyl)ethyl ester, 1,1-dioxide (9CI) (CA INDEX NAME)

L5 ANSWER 51 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

PAGE 1-A



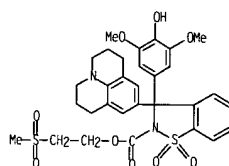
PAGE 2-A



RN 75077-78-0 CAPLUS

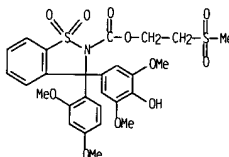
CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-[4-hydroxy-3-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]-1-naphthalenyl]-3-(2,3,6,7-tetrahydro-1H,5H-benzo[*ij*]quinolizin-9-yl)-, 2-(phenylsulfonyl)ethyl ester, 1,1-dioxide (9CI) (CA INDEX NAME)

L5 ANSWER 51 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 79377-74-5 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-(2,4-dimethoxyphenyl)-3-(4-hydroxy-3,5-dimethoxyphenyl)-, 2-(methylsulfonyl)ethyl ester, 1,1-dioxide (9CI) (CA INDEX NAME)



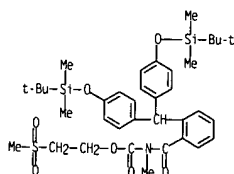
IT 79377-43-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

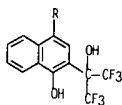
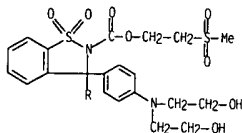
(prepn. and desilylation of)

RN 79377-43-8 CAPLUS

CN Carbanic acid, [2-bis[4-[[[1,1-dimethylethyl]dimethylsilyl]oxy]phenyl]methyl]benzoyl]methyl-, 2-(methylsulfonyl)ethyl ester (9CI) (CA INDEX NAME)

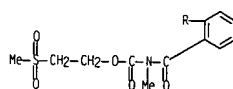
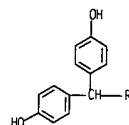


L5 ANSWER 51 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 IT 75077-75-7P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and ether cleavage reaction of)
 RN 75077-75-7 CAPLUS
 CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-[4-[bis(2-hydroxyethyl)amino]phenyl]-3-[4-hydroxy-3-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]-1-naphthalenyl]-, 2-(methylsulfonyl)ethyl ester, 1,1-dioxide (9CI) (CA INDEX NAME)

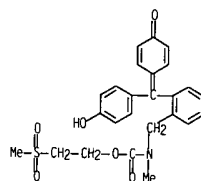


IT 79377-44-9P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and oxidn. of)
 RN 79377-44-9 CAPLUS
 CN Carbamic acid, [2-[bis(4-hydroxyphenyl)methyl]benzoyl]methyl-, 2-(methylsulfonyl)ethyl ester (9CI) (CA INDEX NAME)

L5 ANSWER 51 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

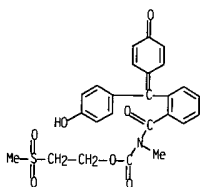


IT 78993-17-6P 79377-84-7P 79377-87-0P
 79377-90-5P 79377-91-6P 79377-92-7P
 79377-99-4P 79378-00-0P 79378-12-4P
 79395-66-7P 79395-67-8P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of, as light-screening dye for photog. film)
 RN 78993-17-6 CAPLUS
 CN Carbamic acid, [[2-[[[4-hydroxyphenyl](4-oxo-2,5-cyclohexadien-1-ylidene)methyl]phenyl]methyl]methyl]-, 2-(methylsulfonyl)ethyl ester (9CI) (CA INDEX NAME)

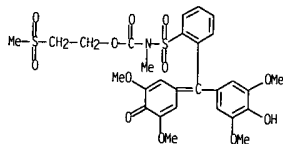


RN 79377-84-7 CAPLUS
 CN Carbamic acid, [2-[[[4-hydroxyphenyl](4-oxo-2,5-cyclohexadien-1-ylidene)methyl]benzoyl]methyl]-, 2-(methylsulfonyl)ethyl ester (9CI) (CA INDEX NAME)

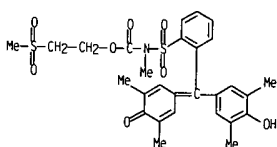
L5 ANSWER 51 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 79377-87-0 CAPLUS
 CN Carbamic acid, [[2-[[[3,5-dimethoxy-4-oxo-2,5-cyclohexadien-1-ylidene](4-hydroxy-3,5-dimethoxyphenyl)methyl]phenyl]sulfonyl]methyl]-, 2-(methylsulfonyl)ethyl ester (9CI) (CA INDEX NAME)

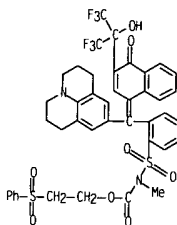


RN 79377-90-5 CAPLUS
 CN Carbamic acid, [[2-[[[3,5-dimethyl-4-oxo-2,5-cyclohexadien-1-ylidene](4-hydroxy-3,5-dimethylphenyl)methyl]phenyl]sulfonyl]methyl]-, 2-(methylsulfonyl)ethyl ester (9CI) (CA INDEX NAME)

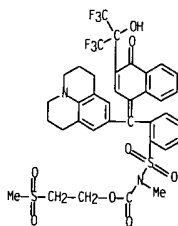


RN 79377-91-6 CAPLUS
 CN Carbamic acid, methyl[[2-[[[4-oxo-3-[2,2,2-trifluoro-1-hydroxy-1-

L5 ANSWER 51 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 (trifluoromethyl)ethyl]-1-(4H)-naphthalenyldiene](2,3,6,7-tetrahydro-1H,5H-benzo[1,2,3-b]quinoxaline-9-yl)methyl]phenyl]sulfonyl]methyl]-, 2-(phenylsulfonyl)ethyl ester (9CI) (CA INDEX NAME)

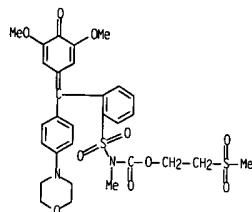


RN 79377-92-7 CAPLUS
 CN Carbamic acid, methyl[[2-[[[4-oxo-3-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]-1-(4H)-naphthalenyldiene](2,3,6,7-tetrahydro-1H,5H-benzo[1,2,3-b]quinoxaline-9-yl)methyl]phenyl]sulfonyl]methyl]-, 2-(methylsulfonyl)ethyl ester (9CI) (CA INDEX NAME)



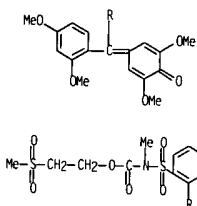
RN 79377-99-4 CAPLUS
 CN Carbamic acid, [[2-[[[3,5-dimethoxy-4-oxo-2,5-cyclohexadien-1-ylidene](4-(4-morpholinyl)phenyl)methyl]phenyl]sulfonyl]methyl]-, 2-(methylsulfonyl)ethyl ester (9CI) (CA INDEX NAME)

L5 ANSWER 51 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 79378-00-0 CAPLUS

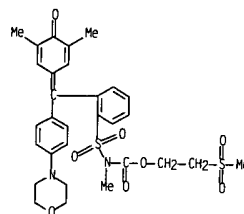
CN Carbamic acid, [[2-[(3,5-dimethoxy-4-oxo-2,5-cyclohexadien-1-ylidene)(2,4-dimethoxyphenyl)methyl]phenyl]sulfonyl]methyl-, 2-(methylsulfonyl)ethyl ester (9CI) (CA INDEX NAME)



RN 79378-12-4 CAPLUS

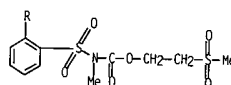
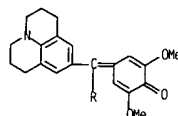
CN Carbamic acid, [[2-[(3,5-dimethyl-4-oxo-2,5-cyclohexadien-1-ylidene)(4-(4-morpholinyl)phenyl)methyl]phenyl]sulfonyl]methyl-, 2-(methylsulfonyl)ethyl ester (9CI) (CA INDEX NAME)

L5 ANSWER 51 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 79395-66-7 CAPLUS

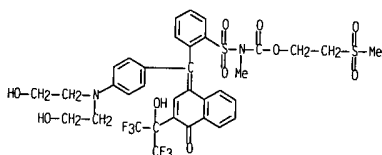
CN Carbamic acid, [[2-[(3,5-dimethoxy-4-oxo-2,5-cyclohexadien-1-ylidene)(2,3,6,7-tetrahydro-1H,5H-benzo[1j]quinolin-9-yl)methyl]phenyl]sulfonyl]methyl-, 2-(methylsulfonyl)ethyl ester (9CI) (CA INDEX NAME)



RN 79395-67-8 CAPLUS

CN Carbamic acid, [[2-[[4-bis(2-hydroxyethyl)amino]phenyl][4-oxo-3-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]-1(4H)-naphthalenylidene]methyl]phenyl]sulfonyl]methyl-, 2-(methylsulfonyl)ethyl ester (9CI) (CA INDEX NAME)

L5 ANSWER 51 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

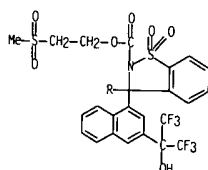


IT 79377-61-0

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with Me iodide and potassium hydroxide, ring cleavage in)

RN 79377-61-0 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-(2,3,6,7-tetrahydro-1H,5H-benzo[1j]quinolin-9-yl)-3-[3-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]-1-naphthalenyl]-, 2-(methylsulfonyl)ethyl ester, 1,1-dioxide (9CI) (CA INDEX NAME)



L5 ANSWER 52 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1982:36856 CAPLUS

DOCUMENT NUMBER: 96:36856

TITLE:
Disperse-reactive dyes suitable for dyeing and printing polyester-cellulose blended fibers
INVENTOR(S):
Cipolli, Roberto; Nebuloni, Antonio; Carugati, Giosue; Burei, Giovanni; Verdi, Roberto; Da Dalt, Vincenzo
PATENT ASSIGNEE(S):
ACNA-Aziende Colori Nazionali Affini S.p.A., Italy
SOURCE:
Eur. Pat. Appl., 42 pp.
CODEN: EPXXDW

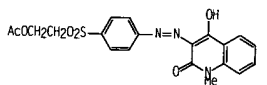
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 33527	A2	19810812	EP 1981-100689	19810130
EP 33527	A3	19820203		
EP 33527	B1	19840711		
R: BE, CH, DE, FR, GB, NL				
JP 56120770	A2	19810922	JP 1981-11781	19810130
ES 498977	A1	19821116	ES 1981-498977	19810130
CA 1172249	A1	19840807	CA 1981-369749	19810130
ES 514060	A1	19830701	ES 1982-514060	19820716
PRIORITY APPL. INFO.:			IT 1980-19585	19800131

GRAPHIC IMAGE:

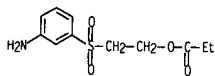


ABSTRACT:

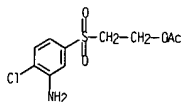
Disperse reactive dyes R(SO₂CH₂CH₂SO₂CR₁)_n (R = azo, anthraquinone, methine, or quinophthalone dye residue free from solubilizing groups; R₁ = C1-8 alkyl optionally substituted by CN or halogen, C2-8 alkenyl optionally substituted by CN or halogen, C1-8 alkoxy, cycloalkyl, C1-4 alkylamino, C1-4 dialkylamino; n = 1, 2) are prep'd. and are used for dyeing cellulosic-polyester blends fast yellow to blue shades. Thus, 4-(hydroxyethylsulfonyl)aniline [5246-58-2] was diazotized, coupled with 1-methyl-4-hydroxy-2-quinolone [1677-46-9], the azo intermediate [79641-33-1] isolated, and treated with Ac₂O to give 1 [***79641-34-2***], printing cotton-polyester a fast greenish yellow shade. Twenty other dyes were prep'd.

IT 79641-26-2

L5 ANSWER 52 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 RL: USES (Uses)
 (coupling of diazotized, with hydroxynaphthylidene deriv.)
 RN 79641-26-2 CAPLUS
 CN Ethanol, 2-[(3-aminophenyl)sulfonyl]-, propanoate (ester) (9C1) (CA INDEX NAME)

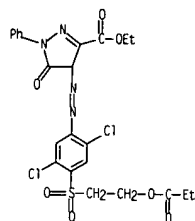


IT 79641-24-0
 RL: USES (Uses)
 (coupling of diazotized, with methylhydroxyquinolone)
 RN 79641-24-0 CAPLUS
 CN Ethanol, 2-[(3-amino-4-chlorophenyl)sulfonyl]-, acetate (ester) (9C1) (CA INDEX NAME)

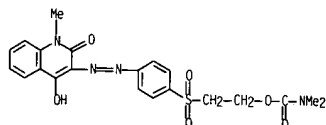


IT 79641-10-4 79641-11-5 79641-13-7
 79641-14-8 79641-16-0 79641-18-2
 79641-19-3 79641-20-6 79641-23-9
 79641-25-1 79641-27-3 79641-30-8
 79641-31-9 79641-32-0
 RL: USES (Uses)
 (dye, for cotton-polyester blends, prepn. of)
 RN 79641-10-4 CAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4-[[2,5-dichloro-4-[[2-(1-oxopropoxy)ethyl]sulfonyl]phenyl]azo]-4,5-dihydro-5-oxo-1-phenyl-, ethyl ester (9C1) (CA INDEX NAME)

L5 ANSWER 52 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

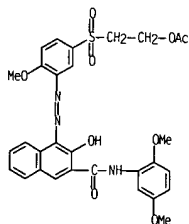


RN 79641-11-5 CAPLUS
 CN Carbamic acid, dimethyl-, 2-[[4-[(1,2-dihydro-4-hydroxy-1-methyl-2-oxo-3-quinolinyl)azo]phenyl]sulfonyl]ethyl ester (9C1) (CA INDEX NAME)

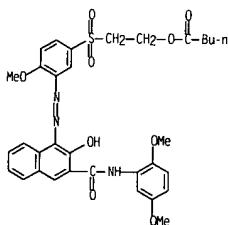


RN 79641-13-7 CAPLUS
 CN 2-Naphthalenecarboxamide, 4-[[5-[[2-(acetyloxy)ethyl]sulfonyl]-2-methoxyphenyl]azo]-N-(2,5-dimethoxyphenyl)-3-hydroxy- (9C1) (CA INDEX NAME)

L5 ANSWER 52 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

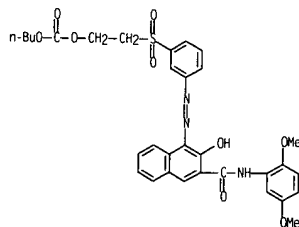


RN 79641-14-8 CAPLUS
 CN Pentanoic acid, 2-[[3-[[3-[(2,5-dimethoxyphenyl)amino]carbonyl]-2-hydroxy-1-naphthalenyl]azo]-4-methoxyphenyl]sulfonyl]ethyl ester (9C1) (CA INDEX NAME)

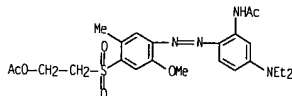


RN 79641-16-0 CAPLUS
 CN Carbamic acid, butyl 2-[[3-[[3-[(2,5-dimethoxyphenyl)amino]carbonyl]-2-hydroxy-1-naphthalenyl]azo]phenyl]sulfonyl]ethyl ester (9C1) (CA INDEX NAME)

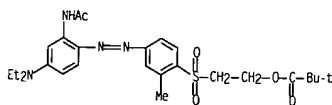
L5 ANSWER 52 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 79641-18-2 CAPLUS
 CN Acetamide, N-[2-[[4-[[2-(acetyloxy)ethyl]sulfonyl]-2-methoxy-5-methylphenyl]azo]-5-(diethylamino)phenyl]- (9C1) (CA INDEX NAME)

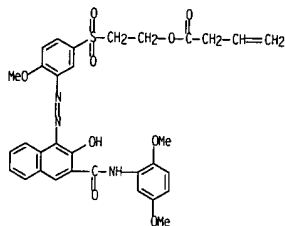


RN 79641-19-3 CAPLUS
 CN Propanoic acid, 2,2-dimethyl-, 2-[[4-[[2-(acetylamino)-4-(diethylamino)phenyl]azo]-2-methylphenyl]sulfonyl]ethyl ester (9C1) (CA INDEX NAME)



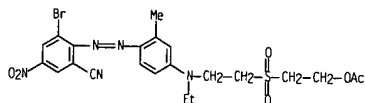
RN 79641-20-6 CAPLUS
 CN 3-Butenoic acid, 2-[[3-[[3-[(2,5-dimethoxyphenyl)amino]carbonyl]-2-hydroxy-1-naphthalenyl]azo]-4-methoxyphenyl]sulfonyl]ethyl ester (9C1) (CA INDEX NAME)

L5 ANSWER 52 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



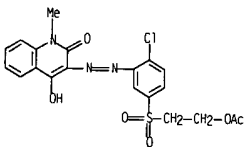
RN 79641-23-9 CAPLUS

CN Benzonitrile, 2-[[4-[[2-(acetyloxy)ethyl]sulfonyl]ethyl]ethylamino]-3-methylphenylazo]-3-bromo-5-nitro- (9CI) (CA INDEX NAME)



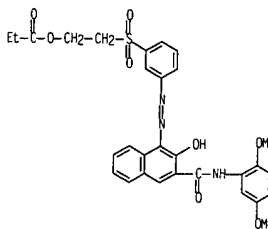
RN 79641-25-1 CAPLUS

CN 2(1H)-Quinolone, 3-[[5-[[2-(acetyloxy)ethyl]sulfonyl]-2-chlorophenyl]azo]-4-hydroxy-1-methyl- (9CI) (CA INDEX NAME)



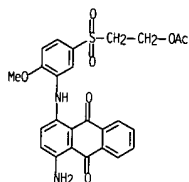
RN 79641-27-3 CAPLUS

CN 2-Naphthalenecarboxamide, N-(2,5-dimethoxyphenyl)-3-hydroxy-4-[[3-[[2-(1-

L5 ANSWER 52 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
oxopropoxyethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

RN 79641-30-8 CAPLUS

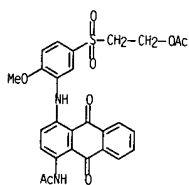
CN 9,10-Anthracenedione, 1-[[5-[[2-(acetyloxy)ethyl]sulfonyl]-2-methoxyphenyl]amino]-4-amino- (9CI) (CA INDEX NAME)



RN 79641-31-9 CAPLUS

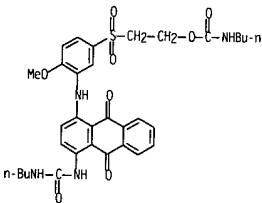
CN Acetamide, N-[4-[[5-[[2-(acetyloxy)ethyl]sulfonyl]-2-methoxyphenyl]amino]-9,10-dihydro-9,10-dioxo-1-anthracenyl]- (9CI) (CA INDEX NAME)

L5 ANSWER 52 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 79641-32-0 CAPLUS

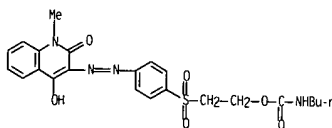
CN Carbamic acid, butyl-, 2-[[3-[[4-[[[butylamino]carbonyl]amino]-9,10-dihydro-9,10-dioxo-1-anthracenyl]amino]-4-methoxyphenyl]sulfonyl]ethyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 52 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

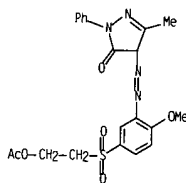
RN 79641-02-4 CAPLUS

CN Carbamic acid, butyl-, 2-[[4-[[1,2-dihydro-4-hydroxy-1-methyl-2-oxo-3-quinolinyl]azo]phenyl]sulfonyl]ethyl ester (9CI) (CA INDEX NAME)



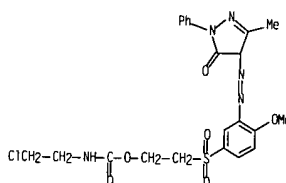
RN 79641-04-6 CAPLUS

CN 3H-Pyrazol-3-one, 4-[[5-[[2-(acetyloxy)ethyl]sulfonyl]-2-methoxyphenyl]azo]-2,4-dihydro-5-methyl-2-phenyl- (9CI) (CA INDEX NAME)



RN 79641-05-7 CAPLUS

CN Carbamic acid, (2-chloroethyl)-, 2-[[3-[[4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl]azo]-4-methoxyphenyl]sulfonyl]ethyl ester (9CI) (CA INDEX NAME)



IT 79641-01-3 79641-02-4 79641-04-6

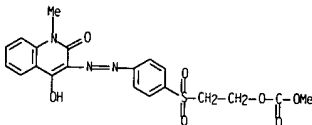
79641-05-7 79641-07-9 79641-34-2

RL: USES (Uses)

(dye, for cotton-polyester fibers, prepn. of)

RN 79641-01-3 CAPLUS

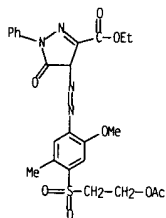
CN Carbamic acid, 2-[[4-[[1,2-dihydro-4-hydroxy-1-methyl-2-oxo-3-quinolinyl]azo]phenyl]sulfonyl]ethyl methyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 52 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

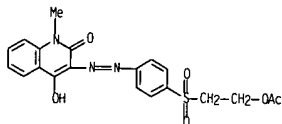
RN 79641-07-9 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[[4-[[2-(acetoxyethyl)sulfonyl]-2-methoxy-5-methylphenyl]azo]-4,5-dihydro-5-oxo-1-phenyl-, ethyl ester (9CI) (CA INDEX NAME)



RN 79641-34-2 CAPLUS

CN 2(1H)-Quinolone, 3-[[4-[[2-(acetoxyethyl)sulfonyl]phenyl]azo]-4-hydroxy-1-methyl- (9CI) (CA INDEX NAME)



IT 79641-35-3

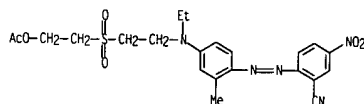
RL: USES (Uses)

(dye, for polyester-cotton blends, manuf. of)

RN 79641-35-3 CAPLUS

CN Benzonitrile, 2-[[4-[[2-(acetoxyethyl)sulfonyl]ethyl]ethylamino]-2-methylphenyl]azo]-5-nitro- (9CI) (CA INDEX NAME)

L5 ANSWER 52 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



L5 ANSWER 53 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1981:444722 CAPLUS

DOCUMENT NUMBER: 95:44722

TITLE: Mixed disazo dyes

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho. 5 pp.

CODEN: JXXXAF

DOCUMENT TYPE: Patent

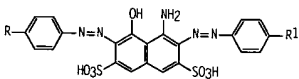
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 56022354	A2	19810302	JP 1979-98796	19790801
JP 60036182	B4	19850819		
PRIORITY APPLN. INFO.:			JP 1979-98796	19790801

GRAPHIC IMAGE:



ABSTRACT:

Disazo dye compns. contg. 20-80% I (R, R1 = SO2CH2CH2OAc, SO2CH2CH2OSO3H, SO2CH:CH2; at least one of R and R1 must be SO2CH2CH2OAc) and 80-20% I (R, R1 = SO2CH2CH2OSO3H, SO2CH:CH2, SO2CH2CH2OH; at least one of R and R1 must be SO2CH2CH2OSO3H or SO2CH:CH2) in free acid forms were prep. using a mixed azo component (contg. 4-aminophenyl 2-sulfoethyl sulfone [2494-89-5] and 4-aminophenyl 2-acetoxyethyl sulfone [73567-87-0]) prep. by heating 1 mol 4-acetamidophenyl 2-hydroxyethyl sulfone (II) [27375-52-6] with 2.4-3.8 mol conc. H2SO4 at 80-130 degree, and are used for dyeing cellulosic fibers. For example II was stirred in 1:3.1 molar ratio with 98% H2SO4 at 60-70 degree, for 1 h, heated to 100-5 degree, over 1 h, stirred at the same temp. for 8 h, taken up in iced water, diazotized, coupled with 1-amino-8-naphthol-3,6-disulfonic acid mono-Na salt [5460-09-3], treated with Na2CO3 to pH 6.5, and spray-dried to give a black powder with good soly. and dyeing cotton in a black shade.

IT 78245-79-1

RL: USES (Uses)

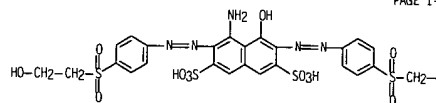
(dye mixts. contg., for cotton)

RN 78245-79-1 CAPLUS

CN 2,7-Naphthalenedisulfonic acid, 3-[[4-[[2-(acetoxyethyl)sulfonyl]phenyl]azo]-5-amino-4-hydroxy-6-[[4-[[2-(hydroxyethyl)sulfonyl]phenyl]azo]-, sodium salt (9CI) (CA INDEX NAME)

L5 ANSWER 53 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

PAGE 1-A



Na

PAGE 1-B

-CH2-OAc

IT 78245-81-5 78245-87-1 78245-88-2

78245-89-3

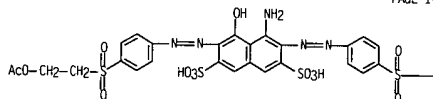
RL: TEM (Technical or engineered material use); USES (Uses)

(dye mixts. contg., for cotton, manuf. of)

RN 78245-81-5 CAPLUS

CN 2,7-Naphthalenedisulfonic acid, 3,6-bis[[4-[[2-(acetoxyethyl)sulfonyl]phenyl]azo]-4-amino-5-hydroxy-, sodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



Na

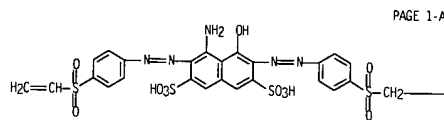
L5 ANSWER 53 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

PAGE 1-B

—CH₂—CH₂—OAc

RN 78245-87-1 CAPLUS

CN 2,7-Naphthalenedisulfonic acid, 3-[[[4-[[2-(acetoxy)ethyl]sulfonyl]phenyl]azo]-5-amino-6-[[4-(ethenylsulfonyl)phenyl]azo]-4-hydroxy-], sodium salt (9CI) (CA INDEX NAME)



● Na

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PAGE 1-B

—CH₂—OAc

RN 78245-88-2 CAPLUS

CN 2,7-Naphthalenedisulfonic acid, 3-[[[4-[[2-(acetoxy)ethyl]sulfonyl]phenyl]azo]-4-amino-5-hydroxy-6-[[4-(ethenylsulfonyl)phenyl]azo]-5-hydroxy-], sodium salt (9CI) (CA INDEX NAME)

L5 ANSWER 53 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

PAGE 1-B

—CH₂—OAc

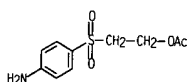
IT 73567-87-0

RL: USES (Uses)

(in manuf. of reactive disazo dye mixts.)

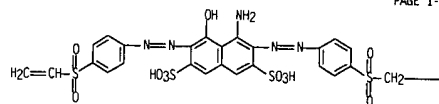
RN 73567-87-0 CAPLUS

CN Ethanol, 2-[[[4-(aminophenyl)sulfonyl]-], acetate (ester) (9CI) (CA INDEX NAME)



L5 ANSWER 53 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

PAGE 1-A



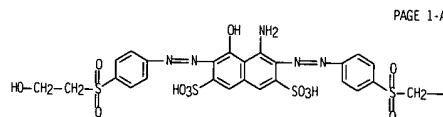
● Na

PAGE 1-B

—CH₂—OAc

RN 78245-89-3 CAPLUS

CN 2,7-Naphthalenedisulfonic acid, 3-[[[4-[[2-(acetoxy)ethyl]sulfonyl]phenyl]azo]-4-amino-5-hydroxy-6-[[4-[[2-(hydroxyethyl)sulfonyl]phenyl]azo]-], sodium salt (9CI) (CA INDEX NAME)



● Na

PAGE 1-A

L5 ANSWER 54 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1981-210311 CAPLUS

DOCUMENT NUMBER: 94-210311

TITLE: Xanthene compounds and photographic products and processes employing them

INVENTOR(S): Cournoyer, Richard L.; Foley, James W.

PATENT ASSIGNEE(S): Polaroid Corp., USA

SOURCE: U.S., 17 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

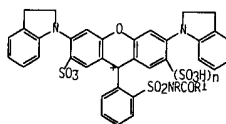
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4258119	A	19810324	US 1979-106938	19791226
US 4290950	A	19810922	US 1980-154618	19800530
US 4311847	A	19820119	US 1980-194462	19801006
CA 1157025	A1	19831115	CA 1980-366058	19801203
AU 8066579	A1	19810702	AU 1980-65579	19801219
AU 539316	B2	19840920		
GB 2068400	A	19810812	GB 1980-40843	19801219
GB 2068400	B2	19830622		
DE 3048164	A1	19810917	DE 1980-3048164	19801219
NL 8007047	A	19810716	NL 1980-7047	19801224
NL 189269	B	19920916		
NL 189269	C	19930216		
FR 2479496	A1	19811002	FR 1980-27455	19801224
FR 2479496	B1	19850412		
JP 56099255	A2	19810810	JP 1980-184976	19801225
JP 01032975	B4	19890711		
PRIORITY APPL. INFO.:			US 1979-106938	19791226

GRAPHIC IMAGE:



I

ABSTRACT:

Xanthene dyes (I; R = alkyl; R1 = Me, OCH₂CH₂R2; R2 = electron withdrawing group; n = 0, 1) are prepd. and used as antihalation dyes or in color correcting dyes in filter layers and are "bleached" when treated by aq. alkali by undergoing irreversible cleavage to colorless compds. Thus, I (R = Me, R1 = OCH₂CH₂SO₂Me, n = 1) [77545-59-6], with bleaching time 5 s at pH 12.

L5 ANSWER 54 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
was prepd. starting from 3,6-dichlorosulfofluorescein [77545-45-0] in a
multistep synthesis.

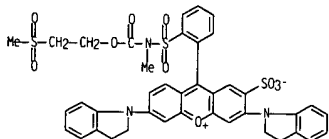
IT 77545-57-4 77545-59-6

RL: USES (Uses)

(filter dyes, for color photog., bleachable, prepn. of)

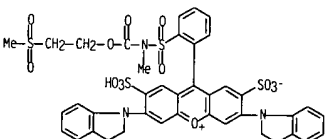
RN 77545-57-4 CAPLUS

CN Xanthylum, 3,6-bis(2,3-dihydro-1H-indol-1-yl)-9-[2-[[methyl][2-(methylsulfonyl)ethoxy]carbonyl]amino]sulfonyl]phenyl]-2-sulfo-, inner
salt (9C1) (CA INDEX NAME)



RN 77545-59-6 CAPLUS

CN Xanthylum, 3,6-bis(2,3-dihydro-1H-indol-1-yl)-9-[2-[[methyl][2-(methylsulfonyl)ethoxy]carbonyl]amino]sulfonyl]phenyl]-2,7-disulfo-, inner
salt (9C1) (CA INDEX NAME)



IT 77545-56-3P 77545-58-5P

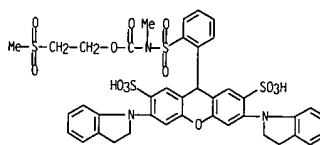
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)

(prepn. and oxidn. of)

RN 77545-56-3 CAPLUS

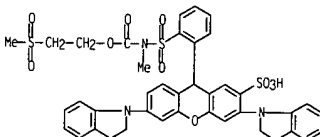
CN 9H-Xanthene-2,7-disulfonic acid, 3,6-bis(2,3-dihydro-1H-indol-1-yl)-9-[2-[[methyl][2-(methylsulfonyl)ethoxy]carbonyl]amino]sulfonyl]phenyl]- (9C1)

L5 ANSWER 54 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
(CA INDEX NAME)



RN 77545-58-5 CAPLUS

CN 9H-Xanthene-2-sulfonic acid, 3,6-bis(2,3-dihydro-1H-indol-1-yl)-9-[2-[[methyl][2-(methylsulfonyl)ethoxy]carbonyl]amino]sulfonyl]phenyl]- (9C1)
(CA INDEX NAME)



IT 77545-48-3P

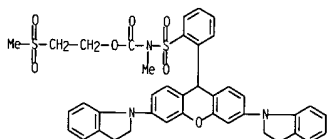
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(prepn. and sulfonation of)

RN 77545-48-3 CAPLUS

CN Carbamic acid, [[2-[3,6-bis(2,3-dihydro-1H-indol-1-yl)-9H-xanthen-9-yl]phenyl]sulfonyl]methyl-, 2-(methylsulfonyl)ethyl ester (9C1) (CA INDEX
NAME)

L5 ANSWER 54 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



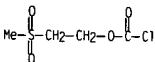
IT 53298-29-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with [[(methylamino)sulfonyl]phenyl]xanthene deriv.)

RN 53298-29-6 CAPLUS

CN Carbonochloridic acid, 2-(methylsulfonyl)ethyl ester (9C1) (CA INDEX
NAME)



L5 ANSWER 55 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1981:210310 CAPLUS

DOCUMENT NUMBER: 94:210310

TITLE: Xanthene compounds and photographic products and
processes employing them

INVENTOR(S): Foley, James W.; Locatelli, Louis, Jr.; Zepp, Charles
M.

PATENT ASSIGNEE(S): Polaroid Corp., USA

SOURCE: U.S., 17 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

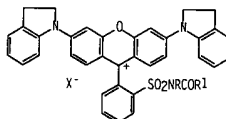
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4258118	A	19810324	US 1979-106905	19791226
US 4290951	A	19810922	US 1980-154619	19800530
US 4310673	A	19820112	US 1980-194464	19801006
CA 1157863	A1	19831129	CA 1980-366056	19801203
AU 8065578	A1	19810702	AU 1980-65578	19801219
AU 539277	B2	19840920		
GB 2068401	A	19810812	GB 1980-40849	19801219
GB 2068401	B2	19830622		
DE 3048165	A1	19810917	DE 1980-3048165	19801219
DE 3048165	C2	19910725		
FR 2472594	A1	19810703	FR 1980-27454	19801224
FR 2472594	B1	19850412		
NL 8007046	A	19810716	NL 1980-7046	19801224
NL 189881	B	19930316		
NL 189881	C	19930816		
JP 56099337	A2	19810810	JP 1980-184977	19801225
JP 63009210	B4	19880226		
PRIORITY APPLN. INFO.:			US 1979-106905	19791226

GRAPHIC IMAGE:



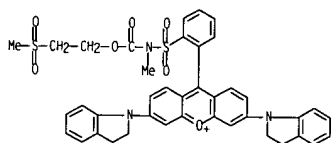
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ABSTRACT:

Xanthene dyes (I; R = alkyl, R1 = Me, OCH2CH2R2; R2 = an electron withdrawing
group; X- = anion) are prepd. and used as antihalation dyes or in color
correction filter layers and are "bleached" when treated with aq. alkali by

L5 ANSWER 55 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
undergoing irreversible cleavage to colorless compds. Thus,
3,6-dichlorosulfonfluorescein [77545-45-0] was heated with indoline
[496-15-1], the resulting intermediate [77545-52-9] converted to the
corresponding acid chloride [77545-53-0], cyclized with NH₃ to the internal
sulfonamide [77545-54-1], N-methylated, ring opened, treated with
ClCO₂CH₂CH₂SO₂Me [53298-29-6], the intermediate [77545-48-3]
isolated, and oxidized to give 1(R = Me, R1 = OCH₂CH₂SO₂Me, X = Br) [***77545-51-8***].

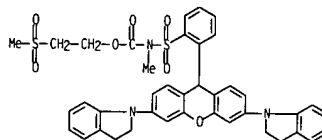
IT 77545-51-8
RL: USES (Uses)
(filter dye, for color photog., bleachable, prepn. of)
RN 77545-51-8 CAPLUS
CN Xanthylum, 3,6-bis(2,3-dihydro-1H-indol-1-yl)-9-[2-[[methyl[[2-(methylsulfonyl)ethoxy]carbonyl]amino]sulfonyl]phenyl]-, bromide (9CI) (CA INDEX NAME)



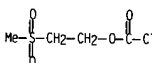
●Br⁻

IT 77545-48-3P
RL: IMF (Industrial manufacture): RCT (Reactant): PREP (Preparation): RACT (Reactant or reagent)
(prepn. and oxidn. of)
RN 77545-48-3 CAPLUS
CN Carbamic acid, [[2-[3,6-bis(2,3-dihydro-1H-indol-1-yl)-9H-xanthen-9-yl]phenyl]sulfonyl]methyl-, 2-(methylsulfonyl)ethyl ester (9CI) (CA INDEX NAME)

L5 ANSWER 55 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



IT 53298-29-6
RL: RCT (Reactant): RACT (Reactant or reagent)
(reaction of, with [[(methylamino)sulfonyl]phenyl]xanthene deriv.)
RN 53298-29-6 CAPLUS
CN Carbonochloridic acid, 2-(methylsulfonyl)ethyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 56 OF 92 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1980:569667 CAPLUS
DOCUMENT NUMBER: 93:169667
TITLE: 3,3-Disubstituted sulfam(na)phthaleins
INVENTOR(S): Foley, James Walter
PATENT ASSIGNEE(S): Polaroid Corp., USA
SOURCE: Ger. Offen., 64 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

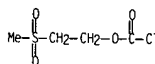
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2943629	A1	19800514	DE 1979-2943629	19791029
US 4259493	A	19810331	US 1978-957163	19781102
AU 7951758	A1	19800508	AU 1979-51758	19791012
AU 529821	B2	19830623		
FR 2440383	A1	19800530	FR 1979-26762	19791029
FR 2440383	B1	19820618		
NL 7908022	A	19800507	NL 1979-8022	19791101
JP 55069570	A2	19800526	JP 1979-141920	19791101
JP 60007989	B4	19850228		
GB 2038350	A	19800723	GB 1979-37842	19791101
GB 2038350	B2	19830119		

PRIORITY APPLN. INFO.: US 1978-957163 19781102
GRAPHIC IMAGE: For diagram(s), see printed CA Issue.

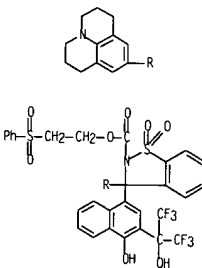
ABSTRACT:
PH-sensitive dyes, useful as easily decolorizable optical filter agents (esp. in diffusion-transfer color photog.), are represented by the general structure I, where R = perhalomethyl, R7 = H or perhalomethyl, R2 = R3 = H or R2R3 = CH:CHCH:CH, R4 = Ph or naphthyl (Ph if R2R3 = CH:CHCH:CH), Z = atoms required to form a benzene or naphthalene ring, and R5 = alkyl, aryl, or OCH₂CH₂OR6 (R6 = H or electron-withdrawing group). A typical dye, blue-green II [75077-79-1] (λ_{max} 645, ε_{max} 33,900; trifluoroethanol), was prepd. by treating a soln. of 4,1,2-Br(HD)C10H5C(OH)(CF₃)₂ [74052-45-2] in THF at -65 degree, with LiBu and then with 3-[4-(diethylamino)phenyl]benz[disothiazole 1,1-dioxide] [74052-46-3], triacetylating the product with AcCl, and hydrolyzing the 2 acetylated hydroxy groups. Other I were similarly prepd., and the use of one them as a photog. filter dye was described in detail.

IT 53298-29-6
RL: RCT (Reactant): RACT (Reactant or reagent)
(acylation by, of benzisothiazole derivs., in dye manuf.)
RN 53298-29-6 CAPLUS
CN Carbonochloridic acid, 2-(methylsulfonyl)ethyl ester (9CI) (CA INDEX NAME)

L5 ANSWER 56 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

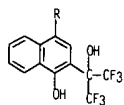
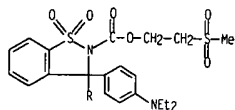


IT 75077-78-0
RL: USES (Uses)
(indicator and optical filter dye, spectral properties of)
RN 75077-78-0 CAPLUS
CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-[4-hydroxy-3-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]-1-naphthalenyl]-3-(2,3,6,7-tetrahydro-1H,5H-benzo[1,1]quinoxalin-9-yl)-, 2-(phenylsulfonyl)ethyl ester, 1,1-dioxide (9CI) (CA INDEX NAME)

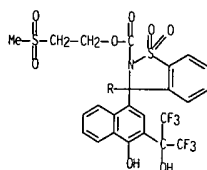


IT 74052-43-0P 74052-44-1P 75077-75-7P
RL: PREP (Preparation)
(manuf. of, as indicator and optical filter dye for photog.)
RN 74052-43-0 CAPLUS
CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-[4-(diethylamino)phenyl]-3-[4-hydroxy-3-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]-1-naphthalenyl]-, 2-(methylsulfonyl)ethyl ester, 1,1-dioxide (9CI) (CA INDEX NAME)

L5 ANSWER 56 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

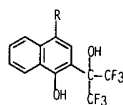


RN 74052-44-1 CAPLUS
CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-[4-hydroxy-3-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]-1-naphthalenyl]-3-(2,3,6,7-tetrahydro-1H,5H-benzo[*ij*]quinolin-9-yl)-, 2-(methylsulfonyl)ethyl ester, 1,1-dioxide (9CI) (CA INDEX NAME)



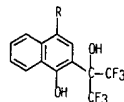
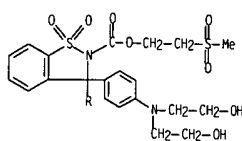
RN 75077-75-7 CAPLUS
CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-[4-[bis(2-hydroxyethyl)amino]phenyl]-3-[4-hydroxy-3-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]-1-naphthalenyl]-, 2-(methylsulfonyl)ethyl ester, 1,1-dioxide (9CI) (CA INDEX NAME)

L5 ANSWER 56 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



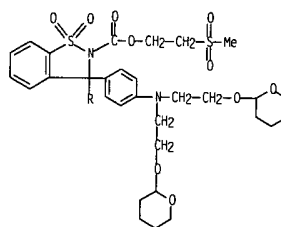
PAGE 2-A

L5 ANSWER 56 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



IT 75077-76-8P
RL: SPH (Synthetic preparation); PREP (Preparation) (prepn. and deetherification of)
RN 75077-76-8 CAPLUS
CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-[4-[bis(2-[(tetrahydro-2H-pyran-2-yl)oxy]ethyl)amino]phenyl]-3-[4-hydroxy-3-[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]-1-naphthalenyl]-, 2-(methylsulfonyl)ethyl ester, 1,1-dioxide (9CI) (CA INDEX NAME)

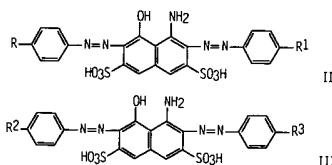
PAGE 1-A



L5 ANSWER 57 OF 92 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1980:182562 CAPLUS
DOCUMENT NUMBER: 92:182562
TITLE: Dye mixtures and their use in dyeing natural or regenerated cellulose fibers
INVENTOR(S): Nishimura, Nobuzi; Tsuji, Masayuki; Konishi, Seizo; Yamamoto, Tadashi; Tokieda, Takemi; Sawa, Utazi; Koumura, Suketsugu
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
SOURCE: Ger. Offen., 24 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2929107	A1	19800131	DE 1979-2929107	19790718
JP 55016060	A2	19800204	JP 1978-89715	19780721
JP 59004451	B4	19840130		
US 4257770	A	19810324	US 1979-57818	19790716
IN 151815	A	19830806	IN 1979-CA735	19790717
GB 2029437	A	19800319	GB 1979-25379	19790720
GB 2029437	B2	19821013		

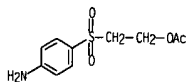
PRIORITY APPLN. INFO.: JP 1978-89715 19780721
GRAPHIC IMAGE:



ABSTRACT:
Treatment of 1 mol 4-AcNHC₆H₄SO₂CH₂CH₂OH [27375-52-6] at 80-130 degree. with 2.4-3.8 mol concd. H₂SO₄ gives a mixt. of 4-H₂NC₆H₄SO₂CH₂CH₂SO₃H and 4-H₂NC₆H₄SO₂CH₂CH₂SO₃Ac which, when diazotized and coupled with 1,8,3,6-HO(H₂N)C₁₀H₄(SO₃H)₂ (I), form a mixt. of dyes II(R, R₁ = SO₂CH₂CH₂SO₃H, SO₂CH₂CH₂SO₃Ac, SO₂CH₂CH₂SO₃H, SO₂CH₂CH₂SO₃Ac) and III (R₂, R₃ = SO₂CH₂CH₂SO₃H, SO₂CH₂CH₂SO₃Ac, SO₂CH₂CH₂SO₃H, SO₂CH₂CH₂SO₃Ac) at least one of R₂ and R₃ = SO₂CH₂CH₂SO₃H or SO₂CH₂CH₂SO₃Ac. The mixt. dyes cellulosic material fast black shades and shows better soly., depth of shade, and build-up than dyes of structure III obtained by coupling I with the difficulty prepd.

L5 ANSWER 57 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
4-H2NC6H4SO2CH2CH2OS03H.

IT 73567-87-00, diazotized, coupling products with H acid
RL: USES (Uses)
(reactive black dyes, for cellulosic fibers)
RN 73567-87-0 CAPLUS
CN Ethanol, 2-[(4-aminophenyl)sulfonyl]-, acetate (ester) (9C1) (CA INDEX NAME)

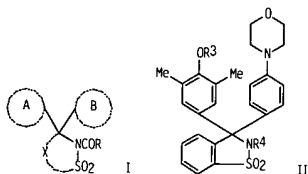


L5 ANSWER 58 OF 92 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1979:458712 CAPLUS
DOCUMENT NUMBER: 91:58712
TITLE: Phenolsulfam(na)phthaleins
INVENTOR(S): Bloom, Stanley Morton; Borrer, Alan Lawrence; Foley, James Walter
PATENT ASSIGNEE(S): Polaroid Corp., USA
SOURCE: Ger. Offen., 173 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2841322	A1	19790405	DE 1978-2841322	19780922
DE 2841322	C2	19880728		
US 4178446	A	19791211	US 1977-835998	19770923
US 4204061	A	19800520	US 1977-836021	19770923
US 4228075	A	19801014	US 1977-836009	19770923
US 4231929	A	19801104	US 1977-836005	19770923
NL 7809678	A	19790327	NL 1978-9678	19780922
GB 2006192	A	19790502	GB 1978-37753	19780922
GB 2006192	B2	19820421		
JP 54063074	A2	19790521	JP 1978-117402	19780922
JP 60009753	B4	19850312		
FR 2408596	A1	19790608	FR 1978-27297	19780922
FR 2408596	B1	19851004		
CA 1110238	A1	19811006	CA 1978-311908	19780922
AU 7840050	A1	19800327	AU 1978-40050	19781025
AU 523247	B2	19820722		
PRIORITY APPLN. INFO.:				US 1977-835998 19770923
				US 1977-836005 19770923
				US 1977-836009 19770923
GRAPHIC IMAGE:				US 1977-836021 19770923

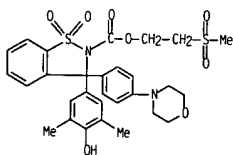
L5 ANSWER 58 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

L5 ANSWER 58 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



ABSTRACT:
Title compds. having the general structure I are prepd., where A = 4-hydroxyphenyl or 4-hydroxy-1-naphthyl, B = Ph or naphthyl (A = 4-hydroxyphenyl when B = naphthyl), X represents the C atoms required to form a 2,3-dihydrobenz[d]isothiazole 1,1-dioxide or 2,3-dihydronaphtho[1,8-de]-1,2-thiazine 1,1-dioxide group, and R = OCH2CH2R1 (R1 = electron-withdrawing group), o-C6H4CH2R2 (R2 = Cl or Br), alkoxy, or phenoxy. I are alkali-sensitive dyes useful as optical filter agents, esp. in diffusion-transfer photog. films. Thus, successive reaction of N-(p-bromophenyl)morpholine [30483-75-1] with BuLi and 3-[3,5-dimethyl-4-(methoxymethoxy)phenyl]benz[d]isothiazole 1,1-dioxide [70368-05-7] in THF and acidification of the resultant reaction mixt. gave II (R3 = CH2OMe, R4 = H) [70654-84-1], which was treated with ClC02CH2CH2CN [30436-27-2] and subsequently demethoxymethylated to form II (R3 = H, R4 = C02CH2CH2CN) [70368-02-4]. Other I were similarly prepd.

IT 70367-94-1
RL: USES (Uses)
(optical filter dye, for photog. films)
RN 70367-94-1 CAPLUS
CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-(4-hydroxy-3,5-dimethylphenyl)-3-[4-(4-morpholinyl)phenyl]-, 2-(methylsulfonyl)ethyl ester, 1,1-dioxide (9C1) (CA INDEX NAME)



L5 ANSWER 59 OF 92 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1975-516964 CAPLUS
DOCUMENT NUMBER: B3:116964
TITLE: Fiber-reactive, water-soluble dyes derived from xanthene
PATENT ASSIGNEE(S): Hoechst A.-G., Fed. Rep. Ger.
SOURCE: Belg., 31 pp. Addn. to Belg. 758.461.
CODEN: BEXXAL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BE 818050	A4	19750124	BE 1974-146908	19740724
DE 2337488	B1	19750130	DE 1973-2337488	19730724
DE 2337488	C2	19750911		

PRIORITY APPLN. INFO.: DE 1973-2337488 19730724
GRAPHIC IMAGE: For diagram(s), see printed CA Issue.

ABSTRACT:

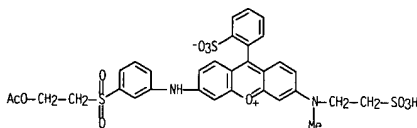
Fiber-reactive xanthene dyes (I, R = CH₂CH₂, CH₂CH₂SO₃H, CH₂CH₂SO₃Me, CH₂CH₂Cl; n = 0, 1; R₁ = Na, K, NH₄, H) were prepd. and used to dye cotton fast, brilliant red to violet shades. Thus, 3-H₂NCH₂CH₂SO₃CH₂CH₂OH [5246-57-1] was treated with 3,6-dichloro-9-(2-sulphophenyl)xanthylium hydroxide inner salt [56046-85-6] in N-methylpyrrolidone, NaO₃SCH₂CH₂NHMe [107-68-6] was added to the completed condensation mixt., the reaction mixt. was then heated, ClSO₃H added, and bluish red dye I(R = 3-CH₂CH₂SO₃H, R₁ = H, n = 0) [32136-42-8] isolated. The other four I were similarly prepd.

IT 56046-89-0P

RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. and cotton dyeing by)

RN 56046-89-0 CAPLUS

CN Xanthylium, 3-[[[3-[[[2-(acetoxyethyl)sulfonyl]phenyl]amino]-6-[methyl(2-sulfoethyl)amino]-9-(2-sulphophenyl)-], inner salt (9C1) (CA INDEX NAME)



L5 ANSWER 60 OF 92 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1975-499198 CAPLUS
DOCUMENT NUMBER: B3:99198
TITLE: Fiber-reactive xanthene dyes
INVENTOR(S): Kohlhaas, Folker; Meiningen, Fritz
PATENT ASSIGNEE(S): Farbwerke Hoechst A.-G., Fed. Rep. Ger.
SOURCE: Ger., 13 pp.
CODEN: GWXXAM
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2337488	B1	19750130	DE 1973-2337488	19730724
DE 2337488	C2	19750911		
CH 603762	A	19780831	CH 1974-10011	19740719
BR 7406056	A0	19750513	BR 1974-6056	19740723
JP 50070427	A2	19750611	JP 1974-83844	19740723
CA 1060436	A1	19790814	CA 1974-205448	19740723
BE 818050	A4	19750124	BE 1974-146908	19740724
FR 2238742	A2	19750221	FR 1974-25681	19740724
FR 2238742	B2	19781124		
GB 1471453	A	19770427	GB 1974-32681	19740724
IN 142296	A	19770618	IN 1974-CA1648	19740724
JP 57044672	A2	19820313	JP 1981-114524	19810723
JP 59040853	B4	19841003		

PRIORITY APPLN. INFO.: DE 1973-2337488 19730724
GRAPHIC IMAGE: For diagram(s), see printed CA Issue.

ABSTRACT:

Fiber-reactive xanthene dyes (I, R' = HO₃SOCH₂CH₂, KO₃SOCH₂CH₂, AcOCH₂CH₂, ClCH₂CH₂, CH₂CH₂; n = 0, 1) were prepd. by condensing 3,6-dichloroxanthylium-9-phenyl-2'-sulfonate [56046-85-6] with NaO₃SCH₂CH₂NHMe [4316-74-9] and HOCH₂CH₂SO₂-substituted aniline or phenethylamine, and subsequently modifying the HOCH₂CH₂SO₂ group and were used to dye cotton fast, bright bluish red shades.

IT 56046-89-0P

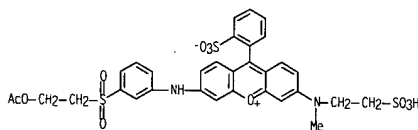
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. and cotton dyeing by)

RN 56046-89-0 CAPLUS

CN Xanthylium, 3-[[[3-[[[2-(acetoxyethyl)sulfonyl]phenyl]amino]-6-[methyl(2-sulfoethyl)amino]-9-(2-sulphophenyl)-], inner salt (9C1) (CA INDEX NAME)

L5 ANSWER 59 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

L5 ANSWER 60 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



L5 ANSWER 61 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1975:461707 CAPLUS
DOCUMENT NUMBER: 83:61707
TITLE: Fiber-reactive xanthene dyes
INVENTOR(S): Kohlhaas, Folker; Meininger, Fritz
PATENT ASSIGNEE(S): Farbwerke Hoechst A.-G., Fed. Rep. Ger.
SOURCE: Ger., 14 pp.
CODEN: GWXXAM
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2337489	B1	19750130	DE 1973-2337489	19730724
DE 2337489	C2	19750911		
CH 603763	A	19780831	CH 1974-10012	19740719
BR 7406057	A0	19750513	BR 1974-6057	19740723
JP 50070426	A2	19750611	JP 1974-83843	19740723
BE 818049	A4	19750124	BE 1974-146907	19740724
FR 2238741	A2	19750221	FR 1974-25680	19740724
GB 1471452	A	19770427	GB 1974-32680	19740724
IN 142295	A	19770618	IN 1974-CA1647	19740724
JP 57044671	A2	19820313	JP 1981-114523	19810723
JP 60003428	B4	19850128		

PRIORITY APPLN. INFO.: DE 1973-2337489 19730724
GRAPHIC IMAGE: For diagram(s), see printed CA Issue.

ABSTRACT:

Fiber-reactive xanthene dyes (I, R = H, Me; R1 = H, Me, MeO; R2 = HO3SOCH2CH2, AcOCH2CH2, ClCH2CH2, CH2CH; n = 0, 1) were prepd. by condensation of a 3-chloro-6-(substituted amino)-9-(2-sulfohenyl)xanthylum inner salt with the appropriate amine and modification of the HOCH2CH2SO2 group to give the appropriate R2, and were used to dye cotton fast, bright bluish red shades.

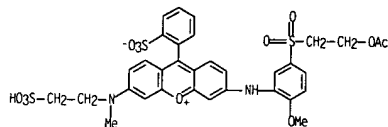
IT 56046-96-9P

RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. and cotton dyeing by)

RN 56046-96-9 CAPLUS

CN Xanthylum, 3-[[5-[[2-(acetyloxyethyl)sulfonyl]-2-methoxyphenyl]amino]-6-methyl(2-sulfoethyl)amino]-9-(2-sulfohenyl)-, inner salt (9CI) (CA INDEX NAME)

L5 ANSWER 61 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



L5 ANSWER 62 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1975:157835 CAPLUS
DOCUMENT NUMBER: 82:157835
TITLE: (Sulfonylary)pyrazoline fluorescent whiteners
INVENTOR(S): Bolton, Ivan J.; Mercer, Alec V.; Fleck, Fritz
PATENT ASSIGNEE(S): Sandoz Ltd.
SOURCE: Ger., Offen., 43 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2429168	A1	19750116	DE 1974-2429168	19740618
NL 7408047	A	19741224	NL 1974-8047	19740617
US 4003889	A	19770118	US 1974-480128	19740617
JP 50035477	A2	19750404	JP 1974-69254	19740619
BR 7405063	A0	19750121	BR 1974-5063	19740620
DD 112447	C	19750405	DD 1974-179325	19740620
ES 427445	A1	19770101	ES 1974-427445	19740620
BE 816725	A1	19741223	BE 1974-145767	19740621
FR 2234286	A1	19750117	FR 1974-21561	19740621
IT 1016129	A	19770530	IT 1974-51657	19740621

PRIORITY APPLN. INFO.: GB 1973-29478 19730621
GB 1973-53255 19731116
GB 1974-6952 19740215
GB 1973-29473 19730621

GRAPHIC IMAGE: For diagram(s), see printed CA Issue.

ABSTRACT:

Fluorescent whiteners (I, R = H, Cl; R1 = H, Me; R2 = NMeCH2CH2SO3Na, OCH2CH2SO3Na, O(CH2)3SO3Na, NaO3SC6H4NH; n = 1, 2) were prepd. and whitenened polyamide fibers. Thus, I (R = R1 = H, R2 = Cl, n = 2) [41479-02-1] was treated with MeNHCH2CH2SO3Na [4316-74-9] to give fluorescent brightener I (R = R1 = H, R2 = NMeCH2CH2SO3Na, n = 2) [55081-07-7].

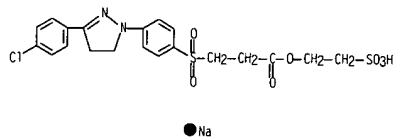
IT 55081-04-4P

RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

RN 55081-04-4 CAPLUS

CN Propanoic acid, 3-[[4-[3-(4-chlorophenyl)-4,5-dihydro-1H-pyrazol-1-yl]phenyl]sulfonyl]-, 2-sulfoethyl ester, sodium salt (9CI) (CA INDEX NAME)

L5 ANSWER 62 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



L5 ANSWER 63 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1975:18631 CAPLUS
 DOCUMENT NUMBER: 82:18631
 TITLE: Distyrylbenzene fluorescent whiteners
 INVENTOR(S): Meyer, Hans Rudolf
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G.
 SOURCE: Ger. Offen., 53 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2401665	A1	19740725	DE 1974-2401665	19740115
CH 569043	A	19751114	CH 1973-921	19730123
NL 7400497	A	19740725	NL 1974-497	19740114
US 3956395	A	19760511	US 1974-433177	19740114
GB 1416116	A	19751203	GB 1974-2268	19740117
FR 2214686	A1	19740819	FR 1974-1854	19740121
IT 1008139	A	19761110	IT 1974-47817	19740121
BE 810015	A1	19740722	BE 1974-140050	19740122
ES 422493	A1	19760801	ES 1974-422493	19740122
CH 619341	A3	19800930	CH 1975-11291	19750901
CH 619341	B	19810331		

PRIORITY APPLN. INFO.: CH 1973-921 19730123
 CH 1973-16760 19731129

GRAPHIC IMAGE: For diagram(s), see printed CA Issue.

ABSTRACT:

Fluorescent whiteners (I, R = Ph, substituted Ph, alkyl, cyclohexyl, AcOCH₂CH₂; R₁ = H, Cl; R₂, R₃ = H, Cl, Me; n = 1, 2; SO₂R groups in o- and/or p-position) were prep. and used to whiten polyester, polyamide, and acetate fibers and acrylic, PVC, cellulose acetate, and polyurethane plastics. Thus, a mixt. of 4-(EtO)2P(O)CH₂C6H4CH2P(O)(OEt)2 [4546-04-7] and p-MeSO₂C6H4CHO [5398-77-6] in DMF in the presence of NaOMe gave I (R = Me, R₁ = R₂ = R₃ = H, n = 1, para substituted) [53606-40-9]. Twenty-three other I were prep.

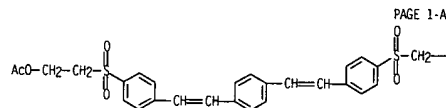
IT 53606-39-6P

RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of)

RN 53606-39-6 CAPLUS

CN Ethanol, 2,2'-[1,4-phenylenebis(2,1-ethenediyl-4,1-phenylenesulfonyl)]bis-, diacetate (9CI) (CA INDEX NAME)

L5 ANSWER 63 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



PAGE 1-B

-CH₂-OAc

L5 ANSWER 64 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1973:148966 CAPLUS
 DOCUMENT NUMBER: 78:148966
 TITLE: Fiber-reactive dyes
 INVENTOR(S): Hille, Ernst; Hoyer, Ernst; Rottmann, Johannes
 PATENT ASSIGNEE(S): Farbwerke Hoechst A.-G.
 SOURCE: Ger. Offen., 45 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2143750	A1	19730308	DE 1971-2143750	19710901
DE 2143750	C2	19820805		
CH 7212734	A4	19750613	CH 1972-12734	19720829
CH 571101	B	19751231		
JP 48033183	A2	19730508	JP 1972-86395	19720830
JP 4904149	B4	19741107		
IT 968372	A	19740320	IT 1972-28649	19720830
FR 2151045	A1	19730413	FR 1972-30952	19720831
US 3788801	A	19740129	US 1972-285670	19720901
GB 1398398	A	19750618	GB 1972-40692	19720901

PRIORITY APPLN. INFO.: DE 1971-2143750 19710901

ABSTRACT:

Fiber-reactive anthraquinone, azo, disazo, and metalized azo dyes (I, R = sulfo group contg. anthraquinonylamino, azo, disazo, and metallized azo chromophores, R₁ = H, OH, OMe, R₂ = H, Me, R₃ = H, SO₃H) were prep. and were used to dye cellulosic and wool fibers fast shades. Thus, 3-O₂NC₆H₄SO₂CH₂CH₂OH was treated with chlorosulfonyl isocyanate, the intermediate catalytically reduced to give 2-[(3-aminophenyl)sulfonyl]ethyl carbanate [40099-92-1], and diazotization and coupling with 3-methyl-1-(2-chloro-4-sulphophenyl)-5-pyrazolone gave azo dye (II) [40099-93-2]. II were used to print cotton giving a wet- and lightfast sharply defined clear yellow print. The other I were similarly prep.

IT 40099-93-2P 41687-33-6P 41687-35-8P

41687-41-6P 41687-42-7P 41687-44-9P

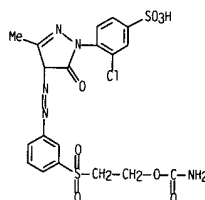
41687-46-1P 41700-29-2P

RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of)

RN 40099-93-2 CAPLUS

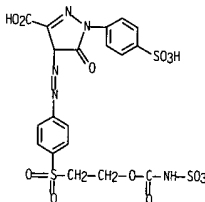
CN Benzenesulfonic acid, 4-[4-[[[3-[[[2-[(aminocarbonyl)oxy]ethyl]sulfonyl]phenyl]azo]-4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-1-yl]-3-chloro- (9CI) (CA INDEX NAME)

L5 ANSWER 64 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 41687-33-6 CAPLUS

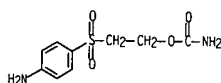
CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-5-oxo-4-[[4-[[[2-[(sulfoamino)carbonyl]oxy]ethyl]sulfonyl]phenyl]azo]-1-(4-sulphophenyl)- (9CI) (CA INDEX NAME)



RN 41687-35-8 CAPLUS

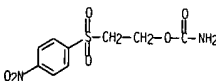
CN 1H-Pyrazole-3-carboxylic acid, 4-[[4-[[[2-[(aminocarbonyl)oxy]ethyl]sulfonyl]phenyl]azo]-4,5-dihydro-5-oxo-1-(4-sulphophenyl)- (9CI) (CA INDEX NAME)

L5 ANSWER 64 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 CN Ethanol, 2-[(4-aminophenyl)sulfonyl]-, carbamate (ester),
 monohydrochloride (9CI) (CA INDEX NAME)



● HCl

IT 41687-36-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (redn. of)
 RN 41687-36-9 CAPLUS
 CN Ethanol, 2-[(4-nitrophenyl)sulfonyl]-, carbamate (ester) (9CI) (CA INDEX NAME)



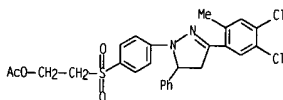
L5 ANSWER 65 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1973:17639 CAPLUS
 DOCUMENT NUMBER: 78:17639
 TITLE: 3-(4,5-Dichloro-o-tolyl)-2-pyrazoline fluorescent
 whiteners
 INVENTOR(S): Mengler, Helmut; Schinzel, Erich; Roesch, Guenter
 PATENT ASSIGNEE(S): Farbwerke Hoechst A.-G.
 SOURCE: Ger. Offen. 16 pp. Addn. to Ger. Offen. 2,011,552 (CA 76:87172y).
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2142564	A	19720914	DE 1971-2142564	19710825
DE 2142564	C3	19800619		
DE 2142564	B2	19790927		
NL 7102967	A	19710914	NL 1971-2967	19710305
NL 163212	B	19800317		
NL 163212	C	19800815		
PRIORITY APPLN. INFO.:			NL 1971-2967	19710305
			DE 1970-2011552	19700311

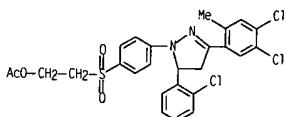
ABSTRACT:
 Thirteen pyrazolines [I: R = Ph, o-C1C6H4, p-C1C6H4, p-MeOC6H4, o-NaO3SC6H4, or m-NaO3SC6H4 and X = CH:CH2 or CH2CH2Z (Z = OH, OAc, SO3Na, CH2CH2Ph)] were prepd. by reaction of 2,4,5-MeC12C6H2COCH:CHR with p-HOCH2CH2SO2C6H4NHNH2 (II) to give I (X = CH2CH2OH) followed, optionally, by acetylation or sulfation of the OH group and subsequent displacement or elimination-addn. reactions. I are fluorescent whiteners for polyamide fibers. For example, 2,4,5-MeC12C6H2Ac, obtained by Friedel-Crafts acetylation of 3,4-C12C6H3Me in EtOH, was treated with BzH and NaOH at 20-40 deg. to give 4,5-dichloro-o-tolyl styryl ketone [37615-75-1] which was refluxed with II in EtOH contg. HCl to form 5-phenyl-3-(4,5-dichloro-o-tolyl)-1-[p-(beta-hydroxyethylsulfonyl)phenyl]-2-pyrazoline (I, R = Ph, X = CH2CH2OH [37615-76-2]).

IT 40567-88-2P 40567-90-6P 40567-95-1P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of)
 RN 40567-88-2 CAPLUS
 CN Ethanol, 2-[[4-[3-(4,5-dichloro-2-methylphenyl)-4,5-dihydro-5-phenyl-1H-pyrazol-1-yl]phenyl]sulfonyl]-, acetate (ester) (9CI) (CA INDEX NAME)

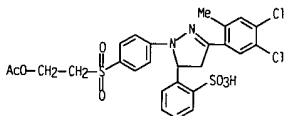
L5 ANSWER 65 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 40567-90-6 CAPLUS
 CN Ethanol, 2-[[4-[5-(2-chlorophenyl)-3-(4,5-dichloro-2-methylphenyl)-4,5-dihydro-1H-pyrazol-1-yl]phenyl]sulfonyl]-, acetate (ester) (9CI) (CA INDEX NAME)



RN 40567-95-1 CAPLUS
 CN Benzenesulfonic acid, 2-[1-[4-[[2-(acetoxy)ethyl]sulfonyl]phenyl]-3-(4,5-dichloro-2-methylphenyl)-4,5-dihydro-1H-pyrazol-5-yl]-, sodium salt (9CI) (CA INDEX NAME)



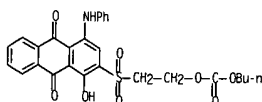
● Na

L5 ANSWER 66 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1973:17622 CAPLUS
 DOCUMENT NUMBER: 78:17622
 TITLE: Disperse anthraquinone dyes
 INVENTOR(S): Kolliker, Hans Peter; Staub, Alfred; Hindermann, Peter
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G.
 SOURCE: U.S., 21 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3689510	A	19720905	US 1970-24810	19700401
US 3767681	A	19731023	US 1972-219852	19720121
US 3769305	A	19731030	US 1972-219850	19720121
US 3803168	A	19740409	US 1972-219853	19720121
US 3806524	A	19740423	US 1972-219851	19720121
PRIORITY APPLN. INFO.:			CH 1969-5026	19690402
			US 1970-24810	19700401

ABSTRACT:
 Fourteen carbonic ester anthraquinone dyes substituted in the .beta.-position by (Y)nOOCOR groups were prepd. (Y = O, S, CONH, NH; n = 0 or 1; O = alkylene, substituted alkylene, phenylene; R = alkyl, bromo-substituted alkyl, Ph and substituted Ph). The compds. dye poly(ethylene terephthalate) light- and sublimationfast shades. Thus, 1-amino-2-(2-hydroxyethyl)-4-hydroxyanthraquinone was dissolved in pyridine and treated with PhO2CCl to give red anthraquinone dye I [28173-59-3]. In other typical examples, 1,5-dihydroxy-4,8-diamino-2-[4-(2-hydroxyethyl)phenyl]anthraquinone reacted with EtO2CCl in PhMe2 to give blue anthraquinone dye II [30416-20-7], and N-(2-hydroxyethyl)-1,4-diamino-2,3-dicarboximide reacted with MeO2CCl in PhCl to give anthraquinone dye III [30416-21-8].

IT 30416-26-3P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of)
 RN 30416-26-3 CAPLUS
 CN Carbonic acid, butyl 2-[[9,10-dihydro-1-hydroxy-9,10-dioxo-4-(phenylamino)-2-anthracenyl]sulfonyl]ethyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 66 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

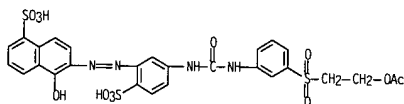
L5 ANSWER 67 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1972:503297 CAPLUS
 DOCUMENT NUMBER: 77:103297
 TITLE: Water soluble fiber reactive azo dyes
 INVENTOR(S): Meininger, Fritz; Steuernagel, Hans Helmut
 PATENT ASSIGNEE(S): Farbwerke Hoechst A.-G.
 SOURCE: Ger. Offen., 111 pp.
 CODEN: GWXXBK
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2054198	A	19720510	DE 1970-2054198	19701104
DE 2054198	B2	19790621		
ES 396488	A1	19750116	ES 1971-396488	19711029
AU 7135192	A1	19730510	AU 1971-35192	19711101
IT 946036	A	19730521	IT 1971-30657	19711102
CH 572515	A	19760213	CH 1971-15957	19711102
CH 599317	A	19780531	CH 1975-848	19711102
JP 57035207	B4	19820728	JP 1971-86861	19711102
CA 965409	A1	19750401	CA 1971-126743	19711103
BE 774915	A1	19720504	BE 1971-110141	19711104
FR 2113555	A5	19720623	FR 1971-39541	19711104
BR 7107367	A0	19730503	BR 1971-7367	19711104
CS 155980	P	19740624	CS 1971-7755	19711104
GB 1377190	A	19741211	GB 1971-51328	19711104
PRIORITY APPLN. INFO.:			DE 1970-2054198	19701104
			CH 1971-15957	19711102

ABSTRACT:
 Twenty-five mono- and two trisazo dyes of general structure I were prepd. and used to dye cotton fast shades. In I, X = CH₂:CH or YCH₂CH₂(Y = OSO₃H, Cl, SO₃H, NEt₂), R = H, Me, or Et, Q = benzene, stilbene, or biphenyl residue, and Z = sulfonated naphthalene or pyrazolone residue; the dyes contain .geq.2 SO₃H groups. For example, 2,4-(H₂N)2C₆H₃SO₃H was condensed with m-OCNC₆H₄SO₂CH₂CH₂Cl to give 3-C₁CH₂CH₂SO₂C₆H₄NHC₆H₃(SO₃H)NH₂-4,3 which was diazotized and coupled with 1-(2,5-dichloro-4-sulphonyl)-3-methyl-5-pyrazolone to give fiber-reactive dye II [35933-89-2].

IT 38127-90-1P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of)
 RN 38127-90-1 CAPLUS
 CN 1-Naphthalenesulfonic acid, 6-[[[5-[[[3-[[[2-(acetoxy)ethyl]sulfonyl]phenyl]amino]carbonyl]amino]-2-sulphonyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)

L5 ANSWER 67 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



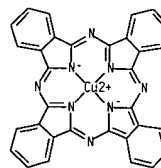
L5 ANSWER 68 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1972:490074 CAPLUS
 DOCUMENT NUMBER: 77:90074
 TITLE: Fiber-reactive dyes containing sulfonyl groups
 INVENTOR(S): Kermochi, Hirohito; Kobayashi, Koichi; Hotta, Seiji; Akamatsu, Takashi
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd.
 SOURCE: Jpn. Tokkyo Koho, 6 pp.
 CODEN: JAXXAD
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 46036912	B4	19711029	JP 1968-52589	19680724

ABSTRACT:
 Dyes modified to have .geq.1 combined group SO₂(NH)_nCH₂CH₂OCOR (n = 0 or 1, R = Me or Et) gave fast dyeings on cotton or wool. Thus, a mole of CuPc(SO₂Cl)-3:4 (Pc = phthalocyanine) was treated with 2 moles m-H₂NC₆H₄SO₂CH₂CH₂OCOR to give a blue dye (I) [35884-98-1] lightfast, washfast bright turquoise blue on cotton. An anthraquinone, 2 azo, and another phthalocyanine dye were similarly modified.

IT 35884-98-1P 37471-98-0P 37590-04-8P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of)
 RN 35884-98-1 CAPLUS
 CN Cuprate(2-), [C.C-bis[[[3-[[[2-[(ethoxycarbonyl)oxy]ethyl]sulfonyl]phenyl]amino]sulfonyl]-2,9H,31H-phthalocyanine-C,C-disulfonato(4-)-N29,N30,N31,N32]-, disodium (9CI) (CA INDEX NAME)

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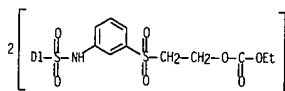


2 [O1-SO3-]

L5 ANSWER 68 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

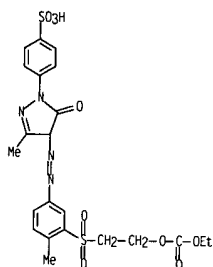
L5 ANSWER 68 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

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● 2 Na⁺

RN 37471-98-0 CAPLUS

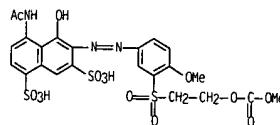
CN Benzenesulfonic acid, 4-[4-[[3-[[2-[(ethoxycarbonyloxy)ethyl]sulfonyl]-4-methylphenyl]azo]-4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-1-yl]-, monosodium salt (9CI) (CA INDEX NAME)



● Na

RN 37590-04-8 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 4-(acetylamino)-5-hydroxy-6-[[4-methoxy-3-[[2-[(methoxycarbonyloxy)ethyl]sulfonyl]phenyl]azo]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

L5 ANSWER 69 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1972:490054 CAPLUS

DOCUMENT NUMBER: 77:90054

TITLE: Dyes containing sulfonyl groups for fibers

INVENTOR(S): Kenmochi, Hirohito; Kobayashi, Koichi; Hotta, Seiji;

Akamatsu, Takashi

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd.

SOURCE: Jpn. Tokkyo Koho. 6 pp.

CODEN: JAXXAD

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 46036914	B4	19711029	JP 1968-56983	19680810

ABSTRACT:

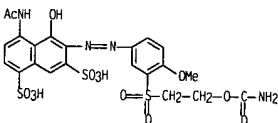
Dyes modified to have .seq.1 combined SO₂(NH)_nCH₂CH₂O(X)NR₂ (R = H or Me, X = O or S, n = 0 or 1) group give fast dyeings on cotton and wool. Thus, an azo dye was modified to give a red dye (I) [35894-87-2], which gave a wash-fast, sunlight-fast bright red dyeing on cotton. Another azo dye, 2 phthalocyanine dyes, and an anthraquinone dye were similarly modified.

IT 35894-87-2P

RL: IMF (Industrial manufacture); PREP (Preparation) (prepn. of)

RN 35894-87-2 CAPLUS

CN 1,7-Naphthalenedisulfonic acid, 4-(acetylamino)-6-[[3-[[2-[(aminocarbonyloxy)ethyl]sulfonyl]-4-methoxyphenyl]azo]-5-hydroxy-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

L5 ANSWER 70 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1972:421577 CAPLUS

DOCUMENT NUMBER: 77:21577

TITLE: Phthalocyanine dyes

INVENTOR(S): Kenmochi, Hirohito; Kobayashi, Koichi; Hotta, Seiji;

Akamatsu, Takashi

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd.

SOURCE: Jpn. Tokkyo Koho. 4 pp.

CODEN: JAXXAD

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 47002435	B4	19720122	JP	19680907

ABSTRACT:

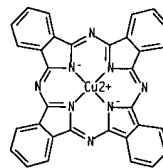
Five fiber-reactive phthalocyanine (Pc) dyes, e.g. turquoise blue dye I [***11121-50-9***], were prepd. by reaction of CuPc(SO₂Cl)₄ or its Ni analog with 2,5-R(H₂N)C₆H₃SO₂CH₂CH₂OCOR₁ (R = H, Me; R₁ = Me, Et) in aq. Me₂CO.

IT 11121-50-9P 37703-33-6P

RL: IMF (Industrial manufacture); PREP (Preparation) (prepn. of)

RN 11121-50-9 CAPLUS

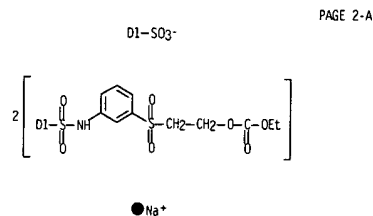
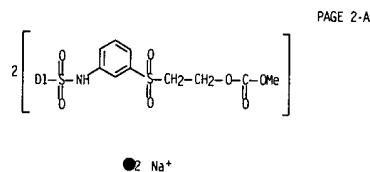
CN Cuprate(2-), [C.C-bis[[[3-[[2-[(methoxycarbonyloxy)ethyl]sulfonyl]phenyl]amino]sulfonyl]-29H,31H-phthalocyanine-C.C-disulfonato(4-)-N29,N30,N31,N32]-, disodium (9CI) (CA INDEX NAME)

2 [O1-SO₃⁻]

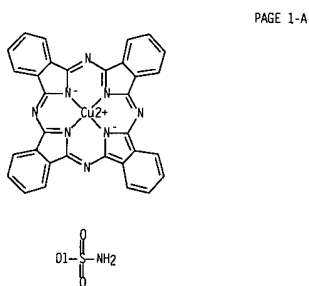
PAGE 1-A

L5 ANSWER 70 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

L5 ANSWER 70 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

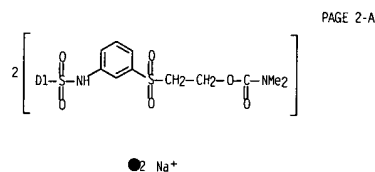


RN 37703-33-6 CAPLUS
 CN Cuprate(1-), [C-(aminosulfonyl)-C,C-bis[[[3-[[[2-[(ethoxycarbonyloxy)ethyl]sulfonyl]phenyl]amino]sulfonyl]-29H,31H-phthalocyanine-C-sulfonato(3-)-N29,N30,N31,N32]-, sodium (9C1) (CA INDEX NAME)



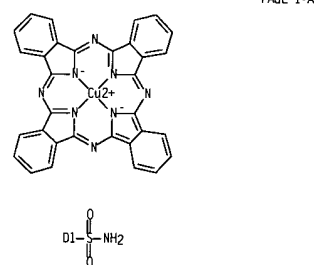
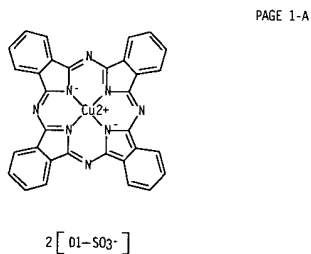
L5 ANSWER 71 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1972:421576 CAPLUS
 DOCUMENT NUMBER: 77:21576
 TITLE: Phthalocyanine dyes
 INVENTOR(S): Kemmochi, Hirohito; Kobayashi, Koichi; Hotta, Seiji; Akamatsu, Takashi
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd.
 SOURCE: Jpn. Tokkyo Koho, 4 pp.
 CODEN: JAXXAD
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

L5 ANSWER 71 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



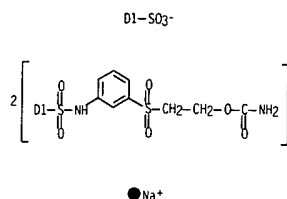
RN 37766-94-2 CAPLUS
 CN Cuprate(1-), [C,C-bis[[[3-[[[2-[(aminocarbonyloxy)ethyl]sulfonyl]phenyl]amino]sulfonyl]-C-(aminosulfonyl)-29H,31H-phthalocyanine-C-sulfonato(3-)-N29,N30,N31,N32]-, sodium (9C1) (CA INDEX NAME)

IT 11121-51-0P 37766-94-2P
 RL: IMF (Industrial manufacture); PREP (Preparation) (prepn. of)
 RN 11121-51-0 CAPLUS
 CN Cuprate(2-), [C,C-bis[[[3-[[[2-[(dimethylamino)carbonyloxy]ethyl]sulfonyl]phenyl]amino]sulfonyl]-29H,31H-phthalocyanine-C,C-disulfonato(2-)-N29,N30,N31,N32]-, disodium (9C1) (CA INDEX NAME)



L5 ANSWER 71 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

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L5 ANSWER 72 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1972:87172 CAPLUS
 DOCUMENT NUMBER: 76:87172
 TITLE: 1-[p-(Alkylsulfonyl)phenyl]-3-(6-alkyl-3,4-dichlorophenyl)-2-pyrazoline fluorescent whitening agents
 INVENTOR(S): Mengler, Helmut; Schinzel, Erich; Roesch, Guenter
 PATENT ASSIGNEE(S): Farbwerke Hoechst A.-G.
 SOURCE: Ger. Offen., 24 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2011552	A	19711014	DE 1970-2011552	19700311
DE 2011552	B2	19790523		
NL 7102967	A	19710914	NL 1971-2967	19710305
NL 163212	B	19800317		
NL 163212	C	19800815		
ES 388953	A1	19750316	ES 1971-388953	19710305
ZA 7101514	A	19720426	ZA 1971-1514	19710308
AT 315803	B	19740610	AT 1971-2020	19710309
CH 713437	A4	19740715	CH 1971-3437	19710309
CH 559273	B	19750228		
CH 569755	A	19751128	CH 1974-10516	19710309
JP 56032313	B4	19810727	JP 1971-12242	19710309
NO 131596	B	19750317	NO 1971-910	19710310
CA 971959	A1	19750729	CA 1971-107343	19710310
SE 378105	B	19750818	SE 1971-3040	19710310
BE 764127	A1	19710913	BE 1971-100796	19710311
FR 2084476	A5	19711217	FR 1971-8465	19710311
HU 162981	P	19730528	HU 1971-H01356	19710311
CS 152391	P	19731219	CS 1971-1790	19710311
SU 439991	D	19740815	SU 1971-1629402	19710311
PL 83038	P	19751231	PL 1971-146795	19710311
RO 61307	P	19760915	RO 1971-66231	19710311
GB 1360490	A	19740717	GB 1971-23815	19710419
JP 56138173	A2	19811028	JP 1981-28523	19810302
JP 59001750	B4	19840113		

PRIORITY APPLN. INFO.: DE 1970-2011552 19700311
 ABSTRACT:
 The title compds. I (R = Me or Et, R1 = CH₂CH₂ or CH₂CH₂X, where e.g. X = OSO₃Na, OAc, OCHMeCH₂NMe₂, OCH₂CH₂NMe₂, NHAc, NMeAc, OEt, OBu) were prepd. from I (R1 = CH₂CH₂OH). I were used as fluorescent whiteners for nylon 6, polyacrylonitrile or 1:1 nylon 66-polyurethane textiles. Thus.

L5 ANSWER 72 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

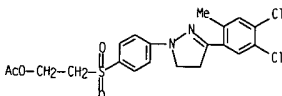
3,4,6-C12MeC6H2COCH2CH2C1, prepd. from 3,4-C12C6H3Me and C1COCH2CH2C1 in the presence of AlCl₃, was added to p-H2NNHC6H4SO2CH2CH2OH in MeOH and the mixt. refluxed 4 hr to give I (R = Me, R1 = CH₂CH₂OH) which was added to H2SO₄ with cooling to give I (R = Me, R1 = CH₂CH₂OSO₃H) (II). II was refluxed with Na₂SO₃ at pH 6 for 1.5 hr to give 3-(3,4-dichloro-6-methylphenyl)-1-[4-(β-sulfoethyl)phenyl]-2-pyrazoline (I, R = Me, R1 = CH₂CH₂OSO₃H) [34346-62-8]. Similarly were prepd. 13 other I.

IT 35441-14-6P 35441-24-8P

RL: IMF (Industrial manufacture): PREP (Preparation)
 (prepn. of)

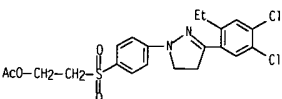
RN 35441-14-6 CAPLUS

CN Ethanol, 2-[[[4-[3-(4,5-dichloro-2-methylphenyl)-4,5-dihydro-1H-pyrazol-1-yl]phenyl]sulfonyl]-, acetate (ester) (9C1) (CA INDEX NAME)



RN 35441-24-8 CAPLUS

CN Ethanol, 2-[[[4-[3-(4,5-dichloro-2-ethylphenyl)-4,5-dihydro-1H-pyrazol-1-yl]phenyl]sulfonyl]-, acetate (ester) (9C1) (CA INDEX NAME)



L5 ANSWER 73 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1972:15762 CAPLUS
 DOCUMENT NUMBER: 76:15762
 TITLE: Dyeing fibers with phthalocyanine dyes
 INVENTOR(S): Kenmochi, Hirodo; Kamida, Tatsuo; Hotta, Seishi; Akamatsu, Akira
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd.
 SOURCE: Jpn. Tokkyo Koho, 5 pp.
 CODEN: JAXXAD
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 46004344	B4	19710203	JP	19680311

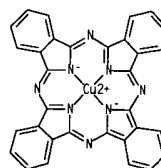
ABSTRACT:
 Metal phthalocyanines I [Pc = phthalocyanine, M = Cu or Ni, X = m-C₆H₄, 3,4-(p-C₆H₄CONH)MeOC₆H₃, p-CH₂CH₂C₆H₄, or 4-methoxy-m-phenylene, R = CH₂CHCO₂Na, o-C₆H₄CO₂Na, CH₂CH₂CO₂Na, 2,4-(NaO₂C)C₆H₃] are light- and washfast blue dyes for cotton. Treatment of CuPc(SOC1)4 in water with m-H2NC6H4SO2CH2CH2O2CCH:CHCO2H in the presence of NaHCO₃ and pyridine followed by salting out gave copper bis[m-[[[2-(β-carboxyacryloyloxy)ethyl]sulfonyl]anilinosulfonyl]phthalocyaninedisulfonic acid tetrasodium salt (I, M = Cu, X = m-C₆H₄, R = CH₂CHCO₂Na); 5 other I were described.

IT 35464-44-9

RL: USES (Uses)
 (dyeing cotton with)

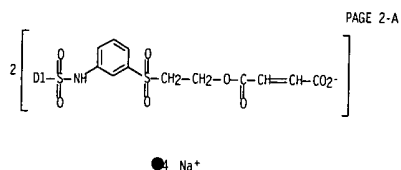
RN 35464-44-9 CAPLUS

CN Cuprate(4-), [[[(disulfo-29H,31H-phthalocyaninediyl)bis(sulfonylimino-3,1-phenylenesulfonyl-2,1-ethanediy)] bis(hydrogen-2-butenedioato)](6-)-N29.N30.N31.N32]-, tetrasodium (9C1) (CA INDEX NAME)



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L5 ANSWER 73 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



L5 ANSWER 74 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1971:450409 CAPLUS
 DOCUMENT NUMBER: 75:50409
 TITLE: Water-soluble anthraquinone dyes for dyeing cellulose fibers
 INVENTOR(S): Meiningen, Fritz; Springer, Hartmut
 PATENT ASSIGNEE(S): Farbwerke Hoechst A.-G.
 SOURCE: Ger. Offen., 23 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

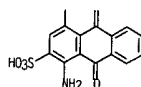
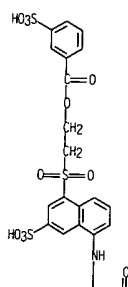
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1953600	A	19710513	DE 1969-1953600	19691024
DE 1953600	B2	19750807		
DE 1953600	C3	19760318		
CH 547336	A	19740329	CH 1970-15540	19701021
JP 49016097	B4	19740419	JP 1970-92479	19701022
FR 2065507	A5	19710730	FR 1970-38323	19701023
FR 2065507	B1	19740920		
ES 384846	A1	19730316	ES 1970-384846	19701023
US 3781310	A	19731225	US 1970-83656	19701023
GB 1310747	A	19730321	GB 1970-50670	19701026
			DE 1969-1953600	19691024

PRIORITY APPLN. INFO.: For diagram(s), see printed CA Issue.
 GRAPHIC IMAGE:
 ABSTRACT:

Fiber-reactive anthraquinone dyes (I, R = CH₂CH₂SO₃H, CH₂CH₂OP₃H₂, CH₂CH₂NEt₂, CH₂CH₂OC₆H₄SO₃H-m, CH₂CH₂, or CH₂CH₂SO₃H, R₁ = H or SO₃H, NH in 2- or 4-position) were prep. and used for dyeing cellulose fibers wash- and lightfast blue or greenish blue shades. For example, condensation of 2-amino-8-(β,β'-hydroxyethylsulfonyl)naphthalene-6-sulfonic acid with 4-bromo-1-aminoanthraquinone-2-sulfonic acid in the presence of CuCl, Cu, and NaHCO₃, and esterification with concd. H₂SO₄ gave 1-amino-4-[[6-sulfo-8-(β,β'-hydroxyethylsulfonyl)-2-naphthyl]amino]anthraquinone-2-sulfonic acid (I, R = CH₂CH₂SO₃H, R₁ = SO₃H, 2-NH). Similarly prep. were 6 other I.

IT 33190-60-2P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of)
 RN 33190-60-2 CAPLUS
 CN Benzoic acid, m-sulfo-, 1-ester with 1-amino-9,10-dihydro-4-[[5-[(2-hydroxyethylsulfonyl)-7-sulfo-1-naphthyl]amino]-9,10-dioxo-2-anthracenesulfonic acid (8C1)] (CA INDEX NAME)

L5 ANSWER 74 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



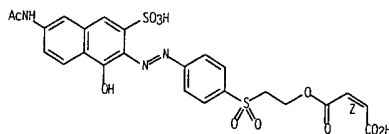
L5 ANSWER 75 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1971:43515 CAPLUS
 DOCUMENT NUMBER: 74:43515
 TITLE: Fiber-reactive azo or anthraquinone dyes
 INVENTOR(S): Sasa, Tsutomu; Asahi, Matahiko; Watanabe, Tetsuo
 PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals Co., Ltd.
 SOURCE: Jpn. Tokyo Koho, 5 pp.
 CODEN: JAXXAD
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 45025781	B4	19700826	JP	19670522

ABSTRACT:
 Azo or anthraquinone dyes contg. SO₂CH₂CH(R)OH [R = H (Q) or Me] groups are acylated with maleic anhydride (I) to incorporate fiber-reactive SO₂CH₂CH(R)O₂CCH:CHCO₂H groups. Thus, 5 parts p-H₂NCGH₄Q, f.wdarw. 1.6.3-HO(AcNH)C₁₀H₄SO₃H was heated for 3 hr with 10 parts I and 0.1 part NaOAc at 95-100 degree, to give a washfast, yellowish orange dye for cotton (applied in the presence of NaHCO₃). Similarly, the following dyes were prep. (parent dye and shade given): 1-amino-4-(m-Q-substituted anilino)anthraquinone-2-sulfonic acid, blue; p-H₂NCGH₄SO₂CH₂CHMeOH, f.wdarw. 1.7.3-HO(AcNH)C₁₀H₄SO₃H, reddish orange; Cu complex from 3.4-H₂N(MeO)C₆H₃Q, f.wdarw. 1.8.3.6-HO(AcNH)C₁₀H₄(SO₃H)₂, reddish violet.

IT 30573-18-3P 30786-55-1P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of)
 RN 30573-18-3 CAPLUS
 CN Maleic acid, 3-ester with 7-acetamido-4-hydroxy-3-[[p-[(2-hydroxyethylsulfonyl)phenyl]azo]-2-naphthalenesulfonic acid (8C1)] (CA INDEX NAME)

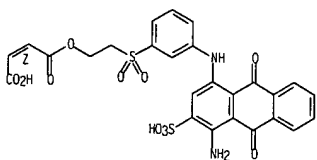
Double bond geometry as described by E or Z.



RN 30786-55-1 CAPLUS
 CN Maleic acid, monoester with 1-amino-9,10-dihydro-4-[[m-[(2-hydroxyethylsulfonyl)anilino]-9,10-dioxo-2-anthracenesulfonic acid (8C1)] (CA INDEX NAME)

L5 ANSWER 75 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

Double bond geometry as shown.



L5 ANSWER 76 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1971:32697 CAPLUS
 DOCUMENT NUMBER: 74:32697
 TITLE: Anthraquinone dyes
 INVENTOR(S): Koelliker, Hans P.; Staub, Alfred; Hindermann, Peter
 PATENT ASSIGNEE(S): Geigy, J. R., A.-G.
 SOURCE: Ger. Offen., 51 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2015587	A	19701008	DE 1970-2015587	19700401
DE 2015587	B2	19730329		
DE 2015587	C3	19731122		
CH 507341	A	19710515	CH 1969-507341	19690402
BE 748287	A	19701001	BE 1970-748287	19700401
NL 7004648	A	19701006	NL 1970-4648	19700401
FR 2038163	A5	19710108	FR 1970-11692	19700401
FR 2038163	B1	19730316		
ES 378116	A1	19720516	ES 1970-378116	19700401
BR 7017916	A0	19730118	BR 1970-217916	19700401
GB 1310741	A	19730321	GB 1970-15464	19700401
JP 48023532	B4	19730714	JP 1970-27060	19700401
CA 945153	A1	19740409	CA 1970-78820	19700401
CA 945151	A2	19740409	CA 1972-141655	19720509
CA 945155	A2	19740409	CA 1972-141656	19720509
JP 50034149	B4	19751106	JP 1972-110216	19721102

PRIORITY APPLN. INFO.: CH 1969-5026 19690402
 CA 1970-78820 19700401

GRAPHIC IMAGE: For diagram(s), see printed CA Issue.

ABSTRACT:

The title compds. (I) were prepd. and used as red to blue disperse dyes for polyester fibers. Thus, reaction of 1-amino-2-[4-(beta-hydroxyethoxy)phenoxy]-4-hydroxyanthraquinone with ClCO2CH2CBr3 at 10-15 degree, in pyridine gave bluish red I (R = NH2, R1 = CH2CBr3, R2 = OH, R3 = R4 = H, X = p-OC6H4OCH2CH2). Similarly II other I were prepd.

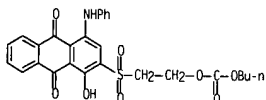
IT 30416-26-3P

RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of)

RN 30416-26-3 CAPLUS

CN Carbonic acid, butyl 2-[[9,10-dihydro-1-hydroxy-9,10-dioxo-4-(phenylamino)-2-anthracenyl]sulfonyl]ethyl ester (9CI) (CA INDEX NAME)

L5 ANSWER 76 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



L5 ANSWER 77 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1970:457173 CAPLUS
 DOCUMENT NUMBER: 73:57173
 TITLE: Fiber-reactive and water-soluble phthalocyanine dyes
 INVENTOR(S): Sasa, Tsutomu; Fujii, Fumio; Murakami, Naomichi;
 Nakahara, Rijin; Kuboi, Tadao
 PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals Co., Ltd.
 SOURCE: Jpn. Tokkyo Koho, 3 pp.
 CODEN: JAXXAD
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 45007664	B4	19700317	JP	19670829

GRAPHIC IMAGE: For diagram(s), see printed CA Issue.

ABSTRACT:

The title compds. (I) were prepd. by acylating MPc(SO3H)m(SO2NHC6H4SO2CH2CH2OH-x)n (II, M = Cu, Ni, m + n = 4, x = 3 or 4) with 3-HO2CC6H4SO2Cl (III). Thus, 71 g wet III in 200 g PhNO2 was stirred at 50 degree, for 10 min, let stand, the PhNO2 layer taken up, and dry air introduced to give 240 g brown soln. (contg. 0.027 % H2O). Pyridine (1.9 g) was added to 34 g of the soln. (contg. 5.2 g III) at <20 degree, the mixt. heated at 100 degree, for 30 min, cooled to 40 degree, treated with 5 g II (m = n = 2, x = 3, M = Cu), stirred at 120 degree, for 5 hr, cooled to 70 degree, treated with 50 g H2O, stirred at room temp. for 2 hr, adjusted to pH 5.2 with 22 g 10% aq. NaOH, let stand for 30 min, the PhNO2 layer removed, the aq. layer heated to 50 degree, and salted to give 6.2 g turquoise blue dye for cotton.

IT 29353-87-5P

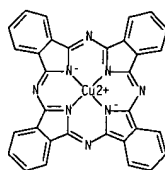
RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of)

RN 29353-87-5 CAPLUS

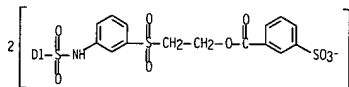
CN Copper, [[dihydrogen bis[[m-[(2-hydroxyethyl)sulfonyl]phenyl]sulfonyl]phthalocyaninedisulfonato(2-)]-, bis(m-sulfobenzoate) (ester) (8CI) (CA INDEX NAME)

L5 ANSWER 77 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

PAGE 1-A



PAGE 2-A



L5 ANSWER 78 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1970:134127 CAPLUS
 DOCUMENT NUMBER: 72:134127
 TITLE: Water soluble reactive dyes
 INVENTOR(S): Kuehne, Rudolf; Meininger, Fritz; Froelich, Heinrich
 PATENT ASSIGNEE(S): Farbwerke Hoechst A.-G.
 SOURCE: U.S., 13 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3440240	A	19690422	US 1964-373863	19640609
NL 6406300	A	19641211	NL 1964-6300	19640604
PRIORITY APPLN. INFO.:			DE 1963-F39951-	19630610

ABSTRACT:

The title dyes for cellulosic fibers contain $NMeSO_2CH_2CH_2C1$ (Q) or related groups. Thus, 34.7 parts 2,4,8-H₂NC10H₅(SO₃Na)₂ (I) was diazotized and coupled with 25 parts 5,2,7-HO(H₂N)C10H₅SO₃Na and the product in 510 vols. H₂O treated dropwise with 32.6 parts 4-OC₆H₄COCl (II), m. 55-60.degree., in 50 vols. Me₂CO at 0-5.degree. in 1 hr to give a red-orange powder, red-orange on cotton. Similar acrylates gave addnl. fiber-reactive dyes (amino compd., acylatin g agent, and shade on cotton given): I. f.wdarw. m-MeC₆H₄NH₂, 4-OC₆H₄NCO (b0.15 175.degree.), reddish yellow; 2.5-(HO₃S)2C₆H₃N:NC₆H₃(NH₂)NH₂-2, 4, 4-CH₂:CHSO₂NMeC₆H₄SO₂C1 (4-OC₆H₄SO₂C1) (m. 74-5.degree.), yellow; 8.1,3,6,2-H₂N(HO)(HO₃S)2C10H₃N:NC₆H₄SO₃H-2, II. bluish red; 1.3,6,2,8-HO(HO₃S)2 (2 - HO₃SC₆H₄N:N)C10H₃NCOC₆H₄NH₂-3 (III), 4-OC₆H₄SO₂C1, bluish red; 4-(5-amino-2-sulfonylphenylazo)-1-(2,5-dichloro-4-sulfonylphenyl)-3-methyl-5-pyrazolone (IV), 4-OC₆H₄COCl, greenish yellow; 4-amino isomer of IV, II, yellow; 2,5,7,1-H₂N(HO₃S)2C10H₄N:NC₆H₃(SO₃H)NH₂-2,5, II, yellowish orange; 4-(6-amino-4,8-disulfo-2-naphthylazo)-1-(2,4-disulfonylphenyl)-3-methyl-5-pyrazolone (V), 4-OC₆H₄NCO (m. 51-1.5.degree.), golden yellow; 1-(3,5-disulfonylphenyl) isomer of V, 4-ClCH₂CH₂SO₂NHC₆H₄COCl (m. 133-5.degree.), yellowish orange; 4-(6-amino-4,8-disulfo-2-naphthylazo)-3-methyl-1-(4-sulfonylphenyl)-5-pyrazolone, II, golden yellow; II, bluish red; 2,4-O₂-N(HO₃S)C₆H₃NC₆H₃(NH₂CH₂CH₂SO₃H)-4,3, II, brown violet; 2,5-(HO₃S)2C₆H₃NH₂ f.wdarw. 6.1-HO₃SC10H₆NH₂ f.wdarw. 2.5-Me-O(Me)C₆H₄NH₂, II, yellowish brown; 2,4,7,1-(HO₃S)3C10H₄NH₂ f.wdarw. 7.1-HO₃SC10H₆NH₂ f.wdarw. 2.5-MeO(Me)C₆H₃NH₂, II, brown; 4-amino-1-(sulfoanilino)thioxanthone, 4-AcOCH₂CH₂SO₂NMe-C₆H₄COCl (b0.3 206-9.degree.), -. Other acylating agents used were 3-OC₆H₄NCO, m. 58.3-9.3.degree., and 3-ClCH₂CH₂SO₂NHC₆H₄COCl, m. 83-5.degree..

IT 26836-00-OP

RL: IMF (Industrial manufacture); PREP (Preparation)

L5 ANSWER 78 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

(prepn. of)

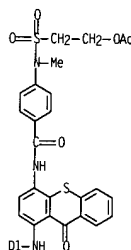
RN 26836-00-0 CAPLUS

CN Benzenesulfonic acid, [[4-[p-(2-hydroxy-N-methylethanesulfonamido)benzamido]9-oxothioxanthene-1-yl]amino]-, acetate (ester) (8C1) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



L5 ANSWER 79 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1969:525974 CAPLUS
 DOCUMENT NUMBER: 71:125974
 TITLE: Monoazaphthal dyes for cotton
 PATENT ASSIGNEE(S): Farbwerke Hoechst A.-G.
 SOURCE: Fr. Addn., 21 pp. Addn. to Fr. 1447780
 CODEN: FAXXA3
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 91572		19680705		

PRIORITY APPLN. INFO.: DE 19651224
 GRAPHIC IMAGE: For diagram(s), see printed CA Issue.

ABSTRACT:

The title compds. of general formula I where one of X, Y, and Z = NHC₆H₄SO₂R₁-x (Q), or their Co. Cr. and Cu complexes are prepd. by treating 1 (2 or 3), 5,7-H₂N(HO)C10H₅SO₃H with x-R1O₂SC₆H₄NCO (II), coupling with diazotized RNH₂, and metallizing. In two alternative processes the acylation is made the final step or x-PhO₂CNHC₆H₄SO₂R₁ may be used instead of II. The acylation is preferably carried out in H₂O or a mixt. of H₂O with C₆H₆, PhCl, or Me₂CO at 0-50.degree. and neutral pH. I (R1 = CH₂CH₂SO₃H) are prepd. by treating I (R = CH₂CH₂Cl or CH:CH₂) with Na₂S₂O₃. When applied to cotton the dyes are fast to washing. For example, a soln. of 23.9 parts 3,5,7-H₂N(HO)C10H₅SO₃H in 200 parts H₂O was stirred with 33% aq. NaOH to give pH 6-7, treated with a soln. of 35 parts II (X = 3, R1 = CH₂CH₂Cl) (III) in 100 parts PhCl at 40-50.degree., followed during 1 hr., by 200 parts H₂O. On completion of the reaction PhCl was distd. in vacuo, the residue dild. to 500 parts with H₂O and treated with a soln. of diazotized 30.3 parts 1,5,2-(HO₃S)2C10H₅NH₂ to give I (R = 1,5,2-(HO₃S)2C10H₅, X = Q, x = 3, R1 = CH₂CH₂Cl, Y = Z = H) (Ia), which dyed fast yellowish red shades on cotton. The following I were prepd. by analogous processes (R, X, Y, Z, x, R1, and shade on cotton given): 2-HO₂CC₆H₄, Q, SO₃H, H, 4, CH:CH₂, red; 2,4,5-H-O₃(Me)(C1)C₆H₂, Q, SO₃H, H, 4, CH₂CH₂Cl, red; 4-HO₃SC₆H₄, Q, H, H, 2, CH₂CH₂Cl, scarlet; 2,4,5-HO₃(Me)(C1)C₆H₂, Q, SO₃H, H, 3, CH₂CH₂OPh, scarlet; 1,5,2-(HO₃S)2C10H₅, Q, SO₃H, H, 3, CH₂CH₂OAc, red; 2,5-(HO₃S)2C₆H₃NH₂ (253 parts) was diazotized and coupled with 2,5,7-(AcNH)(HO)C10H₅SO₃H in 2000 parts H₂O and pH 6.5-7.0. NaOH liquor (940 parts) was added and the soln. was boiled under reflux for 4 hrs., adjusted to pH 6-7 with 37% aq. HCl, cooled to room temp., treated with a soln. of 500 parts III in 1200 parts PhCl at 40.degree., and after 12 hrs. PhCl distd. in vacuo. The residual soln. gave I (R = 2,5-(HO₃S)2C₆H₃, X = Z = H, Y = Q, x = 3, R1 = CH₂CH₂Cl], orange on cotton. A soln. of 23.9 parts 2,5,7-(H₂N)(HO)C10H₅SO₃H (IV) in 200 parts H₂O contg. 33% aq. NaOH to give pH 6.5-7.0 was treated with 30 parts II (x = 3, R1 = CH:CH₂) in 60 parts Me₂CO, heated to 70-5.degree., treated with 26 parts Na₂S₂O₃.SH₂O (the pH held at 5.8-6.3 using H₂OAc during 3 hrs.) followed by 1000 parts H₂O and the soln. salted to give 2,5,7-Q(HO)C10H₅SO₃H (x = 3, R1 = CH₂CH₂SO₃H) (V), 3-HO₃SC₆H₄NH₂ (17.3 parts) was diazotized and coupled with the moist cake of V to give I (R = 3-HO₃SC₆H₄, X = Z = H, Y = Q, x = 3, R1 = CH₂CH₂SO₃H).

L5 ANSWER 79 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 orange on cotton. A mixt. of 60.4 parts 2,8,3,6-Q(OH)C10H4(SO3H)2 (VI. x = 4, R1 = CH2CH2) in 350 parts H2O was stirred with 14 parts Et2NH and 33% aq. NaOH at pH 10.5-11.0 for 4 hrs. and salted to give VI. (x = 4, R1 = CH2CH2NEt2) which was coupled with diazotized 17.3 parts 4-HO3SC6H4NH2 to give I (R = 4-HO3SC6H4, X = Q, Y = SO3H, Z = H, x = 4, R1 = CH2CH2NEt2), yellowish red on cotton. A neutral soln. of 478 parts 4-HO3SO-CH2CH2O2SC6H4NH2 in 3400 parts H2O was treated dropwise at pH 6-7 with 340 parts HCO2PH to give 4-HO3SOCH2CH2O2SC6H4NHCO2PH (VII). A neutral soln. of 239 parts IV in 3000 parts H2O was stirred at 50-60.degree., treated with VII during 3 hrs. (pH 6.8-7.2 held with satd. aq. Na2CO3 soln.), stirred for 5 hrs. at 50-60.degree., cooled to room temp. and coupled with diazotized 1,5,2-(HO3S)2C10H5NH2 (303 parts) to give I (R = 1,5,2-(HO3S)2C10H5, X = Z = H, Y = Q, x = 4, R1 = CH2CH2O2SO3H), orange on cotton. 2,5-HO(HO3S)C6H3NH2 (VIII) (18.9 parts) was diazotized and coupled with the product from 23.9 parts IV and 30 parts III. The product was stirred with 25 parts CuSO4.5H2O in 1000 parts H2O at 50-60.degree. and pH 5.0-5.5 (Na2CO3) for 4 hrs. to give the Cu complex of I [R = 2,5-HO(HO3S)C6H3, X = Z = H, Y = Q, x = 3, R1 = CH2CH2C1], bluish red on cotton. 2-HO2CC6H4NH2 (13.7 parts) was diazotized and coupled with 50.7 parts 2,5,7-Q(OH)-C10H5SO3H (x = 3, R1 = CH2CH2C1) (IX) at pH 6.5-7.0. Chrome alum (25 parts) was added and the soln. stirred at 95.degree. and pH 5-6 for 8 hrs. to give the Cr complex of I (R = 2-HO2CC6H4, X = Z = H, Y = Q, x = 3, R1 = CH2CH2C1) brown on cotton. VIII (18.9 parts) was diazotized and coupled with 23.9 parts 2,8,6-H2N(HO)C10H5SO3H, the product treated with 14 parts CoSO4.7H2O and 30 parts III to give the Co complex of I [R = 2,5-HO(HO3S)C6H3, X = Q, Y = Z = H, x = 3, R1 = CH2CH2C1], bluish brown on cotton. Replacement of the CoSO4.7H2O by chrome alum gave the bluish violet Cr analog. 2,6,8-H2NC10H5(SO3H)2 (30.3 parts) was diazotized and coupled with 50.7 parts IX the product oxidatively copperized to give the Cu complex of I [R = 1,6,8,2-HO(HO3S)2C10H4, X = Z = H, Y = Q, x = 3, R1 = CH2CH2C1], violet on cotton. 2,4-(Me-O)(HO3S)C6H3NH2 (40.6 parts) was diazotized and coupled with the product from 47.8 parts 5,7,1-HO(HO3S)C10H5NH2 and 60 parts III to give I [R = 2,4-MeO(HO3S)C6H3, X = Y = H, Z = Q, x = 3, R1 = CH2CH2C1], red on cotton. Cu complex, violet. Ia (79.9 parts) was stirred in 1000 parts H2O at pH 6.5-7.0 with 26 parts Na2S2O3.5H2O at 90-5.degree. for 3 hrs. to give the R1 = CH2CH2S2O3H analog, yellowish red on cotton.

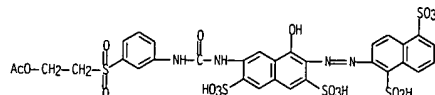
IT 24273-70-9P

RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of)

RN 24273-70-9 CAPLUS

CN 1,5-Naphthalenedisulfonic acid, 2-[[[1-hydroxy-7-[3-[(m-[(2-hydroxyethyl)sulfonyl]phenyl]ureido]-3,6-disulfo-2-naphthyl]azo]-, m-acetate (8C1) (CA INDEX NAME)

L5 ANSWER 79 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



L5 ANSWER 80 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1969:525964 CAPLUS
 DOCUMENT NUMBER: 71:125964
 TITLE: Water-insoluble monoazo dyes
 PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd.
 SOURCE: Fr., 8 pp.
 CODEN: FRXXAK
 DOCUMENT TYPE: Patent
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1531147		19680717		
PRIORITY APPLN. INFO.:	GB		19660715	
	GB		19670602	

GRAPHIC IMAGE: For diagram(s), see printed CA Issue.

ABSTRACT:

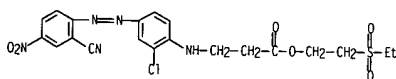
I (where R1 is the residue of a diazo component, R2 is Cl or Me, R3 is H or Me, n is 1 or 2, and X1 is OAc, CO2Et, SO2Et, or CN) dye polyester textiles (II) fast scarlet to red shades. Thus, 1.63 parts 2,4-NC(O2N)C6H3NH2 was diazotized and coupled with 3 parts 2,5-Cl(Me)C6H3NHCH2CH2CO2CH2CH2OAc to give III (Y = CN, R2 = Cl, R3 = Me, X1 = OAc) which dyes II light-fast, red shades. Similarly were prepd. I (R1 = 6-(methylsulfonyl)-2-benzothiazolyl, R2 = R3 = Me, n = 1, X1 = CO2Et), bluish red, and other III (Y, R2, R3, X1, and shade given): H, Cl, Me, OAc, red; CN, Cl, H, SO2Et, scarlet; H, Me, Me, CN, scarlet.

IT 23583-81-5P

RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of)

RN 23583-81-5 CAPLUS

CN .beta.-Alanine, N-[2-chloro-4-[(2-cyano-4-nitrophenyl)azo]phenyl]-, 2-(ethylsulfonyl)ethyl ester (8C1) (CA INDEX NAME)



L5 ANSWER 81 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1966:482843 CAPLUS
 DOCUMENT NUMBER: 65:82843
 ORIGINAL REFERENCE NO.: 65:15556f-h.15557a
 TITLE: Optical bleaching agents
 PATENT ASSIGNEE(S): Hickson & Welch Ltd.
 SOURCE: 20 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BE 671845		19660301	BE	
NL 6514302			NL	
PRIORITY APPLN. INFO.:	GB		19641105	

GRAPHIC IMAGE: For diagram(s), see printed CA Issue.

ABSTRACT:

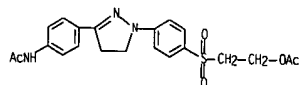
1,3-Diarylpirazolines of structure I are prepd. by condensation of an arylhydrazine with 4-ClCH2CH2CO2C6H4NH2COR (II). Thus, to a mixt. of 67.5 g. PhNHAc, 63.5 g. ClCH2CH2CO2C1, and 40 ml. C2H5Cl4 at 4.degree. was added 140 g. AlCl3 at 110°C. 25.degree.. The mixt. was heated carefully (reaction became vigorous at 40.degree.) and kept for 1.5-2 hrs. at 70.degree., and poured into 700 ml. cold H2O contg. 125 ml. concd. HCl to yield 112.9 g. II (R = Me) (III) as a brownish powder, 85% pure. A soln. of diazonium chloride prepd. from 31.9 g. 4-ClC6H4NH2 was added to a soln. of 126 g. Na2S2O3.7H2O in 350 ml. H2O at 5.degree., the mixt. stirred at pH 6-7 for 1 hr., dild. with 240 ml. concd. HCl, and boiled for 2 hrs. to give 4-ClC6H4NH2.HCl (IV) (54% pure). A soln. of 13.2 g. III in 130 ml. EtOH was charcoalled, filtered, and added to a charcoalled soln. of 16.8 g. 54% IV in 150 ml. 50% aq. MeOH, the mixt. adjusted to pH 1-3, refluxed for 3 hrs., cooled, and the yellow crystals suspended in d11. NH4OH to yield I (X = Z = H, Y = Cl, R = Me), m. 248-52.degree.. .lambda.max. 363 m.mu. (E 823). Similarly, other I (R = Me) were prepd. (X, Y, Z, m.p., .lambda.max. in m.mu. and E given): H, CO2H, H, >315.degree., 374, 1035; H, CO2Et, H, --, 374, 1000; Cl, H, H, 228-30.degree., 362-3, 872; CF3, H, 252-3.degree., 360, 736; H, OMe, H, 248-50.5.degree., 370-2, 642; H, H, Cl, 198-200.degree., 330, 785; H, HOCH2CH2SO2, H, --, 371, 1048; H, AcOCH2CH2SO2, H, 178-80.degree., 372, 978; Cl, H, Me, 182-3.degree., 335, 655; H, H2NCO, H, --, 373, 721; H, CN, H, --, 373, 776. Also prepd. was I (X = Cl, Y = Z = H, R = Et), m. 219-21.degree.. .lambda.max. 362-4 m.mu. (E 772). The compds. prepd. are particularly effective optical bleaches for polyamide and acrylic fibers and have favorable fluorescent properties.

IT 10261-11-7. Acetanilide, 4'-[1-[p-[(2-hydroxyethyl)sulfonyl]phenyl]-2-pyrazolin-3-yl]-, acetate (ester)
 (prepn. of)

RN 10261-11-7 CAPLUS

CN Acetanilide, 4'-[1-[p-[(2-hydroxyethyl)sulfonyl]phenyl]-2-pyrazolin-3-yl]-, acetate (ester) (8C1) (CA INDEX NAME)

L5 ANSWER 81 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



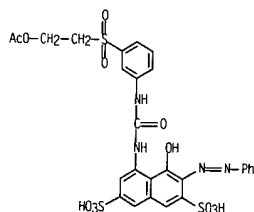
L5 ANSWER 82 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1966:429899 CAPLUS
 DOCUMENT NUMBER: 65:29899
 ORIGINAL REFERENCE NO.: 65:5563h, 5564a-g
 TITLE: Metallized azo dyes
 PATENT ASSIGNEE(S): Farbwerke Hoechst A.-G.
 SOURCE: 39 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 65012362		19660325	NL	19640924

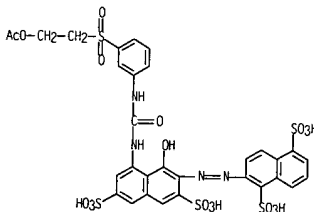
PRIORITY APPLN. INFO.: DE

ABSTRACT:
 The prepn. is described of azo dyes contg. XCH₂CH₂SO₂C₆H₄NHCONH groups, where X = Cl, Ac, OSO₃H, and SO₃H. 1.8.3.6-HO(H₂N)C₁₀H₄(SO₃H)₂ (II) (223 parts) in 700 vols. H₂O neutralized with Na₂CO₃, and treated at 0-5.degree. and pH 6.5-7 during 1 hr. with stirring with 206.5 parts m-ClCH₂CH₂SO₂C₆H₄NCO (III) (m. 81.degree.) in 415 parts Me₂CO yielded 1.8.3.6-HO(m-ClCH₂CH₂SO₂C₆H₄NHCONH)C₁₀H₄(SO₃H)₂ (IV). IV (56.5 parts) in 1000 parts H₂O coupled with 9.3 parts diazotized PhNH₂ (V) yielded V. f.wdarw. IV, dark red. H₂O-sol. powder which dyes wool and polyamide fibers from an acid bath red shades of good light- and washfastness. 1.8.4.6-H₂N(HO)C₁₀H₄(SO₃H)₂ (15.95 parts) treated with 12.5 parts powd. p-CH₂:CHSO₂C₆H₄NCO (VI) (m. 61.degree.) and diazotized 8.65 parts p-HO₃SC₆H₄NH₂ (VII) yielded VII. f.wdarw. 1.8.3.5-HO(p-CH₂:CHSO₂C₆H₄NHCONH)C₁₀H₄(SO₃H)₂, a red powder, bright red on cotton. Similarly, 16.0 parts II, 19 parts o-ClCH₂CH₂SO₂C₆H₄NCO (VIII), and diazotized 4.66 parts V yielded V. f.wdarw. 1.8.3.6-HO(o-ClCH₂CH₂SO₂C₆H₄NHCONH)C₁₀H₄(SO₃H)₂, a dark red powder; it dyes bluish red shades. II (16.0 parts) with 15 parts p-isomer of III (m. 100.degree.) and diazotized 6.9 parts o-HO₂CC₆H₄NH₂ (IX) yielded the bluish red dye IX. f.wdarw. 1.8.3.6-HO(p-ClCH₂CH₂SO₂C₆H₄NHCONH)C₁₀H₄(SO₃H)₂. II (16.0 parts) condensed with 30 parts p-HO₃SOCH₂CH₂C₆H₄NHCO₂Ph, and the resulting 1.8.3.6-HO(p-HO₃SOCH₂CH₂C₆H₄NHCONH)C₁₀H₄(SO₃H)₂ (X) coupled with diazotized 11.1 parts 2.1-H₂NClO₆SO₃H (XI) gave brilliant blue XI. f.wdarw. X. II condensed with an equiv. amt. of ClCO₂Ph at 55-60.degree. and pH 7.0-7.3 and an equiv. amt. of p-HO₃SOCH₂CH₂C₆H₄NH₂ also yielded X. II (16.0 parts) with 13 parts m-CH₂:CHSO₂C₆H₄NCO (m. 46.degree.) and 13.2 parts diazotized 4.3-H₂N(HO₃)C₆H₃NHPh (XII) yielded blue XII. f.wdarw. 1.8.3.6-HO(m-CH₂:CHSO₂C₆H₄NHCONH)C₁₀H₄(SO₃H)₂. II (12.8 parts) treated with 15 parts m-PhOCH₂CH₂SO₂C₆H₄NCO (m. 87.degree.) and 6.9 parts diazotized p-HO₃SC₆H₄NH₂ (XIII) yielded red XIII. f.wdarw. 1.8.3.6-HO(m-PhOCH₂CH₂SO₂C₆H₄NHCONH)C₁₀H₄(SO₃H)₂. 6.1.4.2-Cl(HO)(HO₃)C₆H₂NH₂ (XIV) (11.2 parts) diazotized and coupled with 28 parts IV, and the product metallized at 40.degree. and pH 4.5-5.5 during about 2 hrs. in 500 parts H₂O with 12.5 parts CuSO₄.5H₂O gave the violet Cu complex of XIV. f.wdarw. IV (N)

L5 ANSWER 82 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 (CA INDEX NAME)



RN 6730-54-7 CAPLUS
 CN 1.5-Naphthalenedisulfonic acid, 2-[[1-hydroxy-8-[3-[m-[(2-hydroxyethyl)sulfonyl]phenyl]ureido]-3,6-disulfo-2-naphthyl]azo]-, acetate (ester) (8C1) (CA INDEX NAME)



L5 ANSWER 82 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 complex, red-violet). II 31.9, VI 26, and diazotized 2.5-HO(O₂N)C₆H₃NH₂ (XV) 15.4 parts yielded XV. f.wdarw. 1.8.3.6-HO(p-CH₂:CHSO₂C₆H₄NHCONH)C₁₀H₄(SO₃H)₂ which with 25.0 parts KCr(SO₄)2.12H₂O gave the blue-gray Cr complex. 1.8.6-H₂N(HO)C₁₀H₅SO₃H 11.96, III 15, and diazotized 3.5.7.1-(HO₃S)3C₁₀H₄NH₂ (XVI) 19 parts yielded red-violet XVI. f.wdarw. 1.8.3-HO(m-ClCH₂CH₂SO₂C₆H₄NHCONH)C₁₀H₅SO₃H. 1.8.3-H₂N(HO)C₁₀H₅SO₃H 11.96, III 20, and diazotized 4.8.2(HO₂S)2C₁₀H₅NH₂ (XVII) 15.1 parts yielded bluish brown XVII. f.wdarw. 1.8.7-HO(m-ClCH₂CH₂SO₂C₆H₄NHCONH)C₁₀H₅SO₃H. 2.5-(HO₃S)2C₆H₃NH₂ (25.3 parts) diazotized and coupled with 13.7 parts 3.4-H₂N(MeO)C₆H₃Me, and the resulting 2.6.4-Me(MeO)-[2.5-(HO₃S)2C₆H₃N:N]C₆H₂NH₂ (XVIII) diazotized and coupled with 56.5 parts III gave navy-blue XVIII. f.wdarw. IV. m-HO₃SC₆H₄NH₂ (37.5 parts) with 22.5 parts CuSO₄.H₂O and 11.3 parts 35% H₂O₂ gave the red-violet Cu complex. p-HO₃SC₆H₄NH₂ diazotized and coupled with II, and the product condensed with III yielded bluish red p-HO₃SC₆H₄NH₂. f.wdarw. IV. 1.8.3.6-HO(EtNH)C₁₀H₄(SO₃H)₂ 34.7, III 40, and diazotized V 9.3 parts yielded bright red V. f.wdarw. 1.8.3.6-HO(m-ClCH₂CH₂SO₂C₆H₄NCONET)C₁₀H₄(SO₃H)₂. 2.5-HO(HO₃S)C₆H₃NH₂ (XIX) (18.9 parts) diazotized and coupled with 31.9 parts II, the resulting XIX. f.wdarw. II metallized with CuSO₄.6H₂O, and the resulting Co complex condensed with 30 parts III yielded the navy-blue Co complex of XIX. f.wdarw. IV. 1.8.3.6-HO(p-CH₂:CHSO₂C₆H₄NHCONH)C₁₀H₄(SO₃H)₂ (XX) (52.9 parts) coupled with 9.3 parts diazotized V yielded red V. f.wdarw. XX. XX coupled with diazotized VII gave similarly red VII. f.wdarw. XX. IV from 319 parts II and 296 parts III coupled with 303 parts diazotized 1.5.2-(HO₃S)2C₁₀H₅NH₂ (XXI) gave brilliant bluish red XXI. f.wdarw. IV. A similar dye was obtained using 335 parts m-ACCH₂CH₂SO₂C₆H₄NCO (XXII) instead of III. A similar run with 6.8.2-(HO₃S)2C₁₀H₅NH₂ (XXIII) gave bluish red XXIII. f.wdarw. IV. XXIII. f.wdarw. IV 44 with CuSO₄.5H₂O 22.5, and 35% H₂O₂ 11.3 parts gave the blue Cu complex. II (319 parts) condensed with 335 parts XXII, and the product coupled with 93 parts diazotized V yielded brilliant red V. f.wdarw. 1.8.3.6-HO(m-ACCH₂CH₂SO₂C₆H₄NHCONH)C₁₀H₄(SO₃H)₂. X coupled with diazotized XXI gave bluish red XXI. f.wdarw. X. IV from 159.5 parts II and 148 parts III treated in H₂O with 121 parts 33% aq. NaOH at 10-15.degree. and then heated 3 hrs. at 70-5.degree. with 130 parts Na₂S₂O₃.5H₂O, and the resulting 1.8.3.6-HO(m-NaO₃SSC₆H₄NHCONH)C₁₀H₄(SO₃H)₂ (XXIII) coupled with diazotized 111.5 parts XI yielded bluish red XI. f.wdarw. XXIII. Similarly was prepd. bluish red 1.5.2-(HO₃S)2C₁₀H₅NH₂. f.wdarw. XXIII. 2.4-HO₂CC₆H₃NH₂ (XXV) (217 parts) diazotized and coupled with IV from 319 parts II and 296 parts III gave brilliant red XXV. f.wdarw. IV (Cu complex, red-violet; Cr complex, blue-violet). 2.5-(HO₃S)2C₆H₃NH₂. f.wdarw. 5.2-Me(HO)C₆H₃NH₂. f.wdarw. IV 98, H₂O 650, AcONa 30, AcOH 32, and CuSO₄.5H₂O 43 parts refluxed about 10 hrs. with stirring yielded the blue Cu complex.

IT 6547-67-7, 2.7-Naphthalenedisulfonic acid, 4-hydroxy-5-[3-[m-[(2-hydroxyethyl)sulfonyl]phenyl]ureido]-3-(phenylazo)-, 5-acetate
 6730-54-7, 1.5-Naphthalenedisulfonic acid, 2-[[[1-hydroxy-8-[3-[m-[(2-hydroxyethyl)sulfonyl]phenyl]ureido]-3,6-disulfo-2-naphthyl]azo]-, acetate (ester)
 (prepn. of)
 RN 6547-67-7 CAPLUS
 CN 2.7-Naphthalenedisulfonic acid, 4-hydroxy-5-[3-[m-[(2-hydroxyethyl)sulfonyl]phenyl]ureido]-3-(phenylazo)-, 5-acetate (7C1, 8C1)

L5 ANSWER 83 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1965-463713 CAPLUS
 DOCUMENT NUMBER: 63:63713
 ORIGINAL REFERENCE NO.: 63:11748h, 11749a-d
 TITLE: 1,3-Diarylpyrazolines
 INVENTOR(S): Sarkar, Asim K.; Adams, Dennis A. W.
 PATENT ASSIGNEE(S): Hickson & Welch Ltd.
 SOURCE: 5 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 993055		19650526	GB	19601028

GRAPHIC IMAGE: For diagram(s), see printed CA Issue.

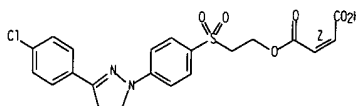
ABSTRACT:

Diarylpyrazolines of the general structure I are fluorescent brightening agents for nylon. They are prepd. by the condensation of an arylhydrazine with 4-YC₆H₄COCH₂CH₂NMe₂.HCl(I) (Method A), 4-YC₆H₄COCH₂CH₂Cl(II) (Method B), or 4-YC₆H₄COCH₂CH₂(IV) (Method C). Thus, 5.1 g, 4-HOCH₂CH₂SO₂CH₂CH₂NH₂.SnCl₄ (V) and 2.5 g, II (Y = Cl) (VI) were refluxed in 120 ml, MeOCH₂CH₂OH (VII) for 7 hrs. After distn. of 80 ml, VII, 15 ml, EtOH was added and the mixt. cooled to give I (R = R' = H, Y = Cl) (VIII), m. 220-2.degree. (Method A). VIII, m. 224-5.degree., was also prepd. as follows: a mixt. of 200 ml, 0.05M aq. 4H₂NNHC₆H₄SO₂CH₂CH₂SO₃H and 300 ml, MeOH was adjusted to pH 3 with NaOH, stirred under reflux, and treated over 2 hrs. with 200 ml, 0.05M MeOH soln. of III (Y = Cl) (IX), held at pH 3 by addn. of 20M aq. Na₂CO₃ soln., refluxed 7 hrs., and 500 ml, MeOH distd. (Method B). A soln. of 15 g, IV (Y = Cl) (X) and 24 g, 4-H₂NNHC₆H₄SO₂CH₂CH₂(OH)Me in 100 ml, EtOH acidified to pH 4 was stirred for 3 hrs. at 20.degree., 70 ml, EtOH distd., and the soln. cooled to give I (R = H, R' = Me, Y = Cl), m. 170-1.degree. (EtOH) (Method C). Similarly, other I were prepd. (method, R, R', Y and m.p. given): A, H, H, H, 175-7.degree. (EtOH); C, H, Me, OMe, 152-3.degree. (EtOH); A, H, H, NMe₂, 244.degree. (Me₂CO); B, H, H, NHAc, 230-2.degree. (EtOH); B, H, CH₂CH₂CH₂OMe, Cl, 117-18.degree.; A, H, H, OMe, 170-2.degree. (EtOH); B, H, CH₂(OCH₂CH₂)₂OMe, Cl, -[viscous oil]. A soln. of 1 g, VIII in 7.5 ml, pyridine treated with 1.25 ml, ClSO₃H with stirring and cooling, stirred 0.5 hr., dild. with 150 ml, H₂O, and acidified to Congo red with HCl gave I (R = HO₃S, R' = H, Y = Cl). A mixt. of 91.6 g, VIII and 29.5 g, maleic anhydride in PhCl heated for 4 hrs. under reflux gave 110 g, I (R = HO₂CCH=CHCO, R' = H, Y = Cl), m. 137-42.degree. (EtOH), .lambda_{max}, 366 m.mu.. Prepn. of V: 4-AcNH₂C₆H₄SO₂H was treated with ethylene oxide, the AcNH group hydrolyzed, and 4-H₂NNHC₆H₄SO₂CH₂CH₂OH diazotized and reduced with SnCl₂ in HCl. VI, m. 168.degree. (EtOH), was prepd. from 4-ClC₆H₄Ac, Me₂NH₂.HCl and paraformaldehyde in boiling EtOH; similarly was prepd. II (Y=Me₂N), ClCH₂CH₂COCl and PhCl at 100.degree. with AlCl₃ gave IX, m. 46-9.degree.; similarly was prepd. III (Y =

L5 ANSWER 83 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 AcNH), m. 154-6.degree. (EtOH). X, a pale yellow oil, was prepd. by steam distn. of VI. I gave a strong reddish-blue fluorescence when applied to nylon from detergents in 0.01-0.2% concn.

IT 3663-96-5, Ethanol, 2-[[p-[3-(p-chlorophenyl)-2-pyrazolin-1-yl]phenyl]sulfonyl]-, hydrogen maleate (ester) (prepn. of)
 RN 3663-96-5 CAPLUS
 CN 2-Butenedioic acid (2Z)-, mono[2-[[[4-[3-(4-chlorophenyl)-4,5-dihydro-1H-pyrazol-1-yl]phenyl]sulfonyl]ethyl] ester (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L5 ANSWER 84 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1965-83160 CAPLUS
 DOCUMENT NUMBER: 62:83160
 ORIGINAL REFERENCE NO.: 62:14864d-h, 14865a
 TITLE: Azo dyes
 PATENT ASSIGNEE(S): Farbwerke Hoechst A.-G.
 SOURCE: 30 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 64005297		19641116	NL	

PRIORITY APPLN. INFO.: DE 19630514

ABSTRACT:

Dyes of the general formula I, where Q is a dye residue, A is the residue of an azo component, X is SO₂, CO, or CONH, and Y is CH₂CH₂Cl, CH₂CH₂SO₃H, or CH=CH₂, and R' = H or Me, were prepd. either from diazo compds. contg. the moiety C₆H₃(R)N-(Me)SO₂Y, or from coupling compds. contg. this moiety. I are useful for dyeing various types of material. Thus, a soln. of 94 parts 2,4-(H₂N)C₆H₃SO₃H (II) in 980 vols. H₂O and dil. NaOH was treated at 0-5.degree. within 3 hrs. with a soln. of 162.2 parts 4-ClOC₆H₄N(Me)SO₂CH₂CH₂Cl (III) (m. 55-60.degree.) in 250 vols. Me₂O, while the pH was kept at 6-6.5 by adding dil. Na₂CO₃. The product was pptd. by the addn. of NaCl, filtered, washed with dil. NaCl, dissolved in 1950 vols. H₂O, diazotized, and coupled with a slightly alk. soln. of 162 parts 1-(2,5-dichloro-4-sulphophenyl)-3-methyl-5-pyrazolone in 450 vols. H₂O. The dye was pptd. by the addn. of KCl, filtered, and dried at 60.degree. to give a yellow powder, dyeing cellulose greenish yellow, wash-fast shades. Similarly, other I were prepd. (reactants and shades on cellulose given): II, III, 1.8,3,6-AcNH(HO)C₁₀H₄(SO₃H)₂, bluish red; 2,5-(H₂N)C₆H₃SO₃H, III, 3,6,1-(HO₃S)C₂C₁₀H₅OH, red; 2,6,4,8-(H₂N)C₂C₁₀H₄(SO₃H)₂, III, 1-(4-sulphophenyl)-3-methyl-5-pyrazolone, golden-yellow; 2,6,4,8-H₂N-(O₂N)C₁₀H₄(SO₃H)₂, III (NO₂ group reduced), 1-(2,4-disulphophenyl)-3-methyl-5-pyrazolone, yellow-orange; 4,4'-diamino-2,2'-dimethylbiphenyl-5-sulfonic acid, III, 2,8,6-H₂N(HO)C₁₀H₅SO₃H, red. Other I were prepd. by acylating an amine with a sulfonamide, followed by coupling of the reaction product with a diazotized amine (amine, sulfonamide, diazonium component, and shade on cellulose given): 1,8,3,6-H₂N(HO)C₁₀H₄(SO₃H)₂ (IV), III, o-HO₃SC₆H₄NH₂ (V), red; 2,5,7-H₂N(HO)C₁₀H₅SO₃H (VI), III, 1,7,2-(HO₃S)C₂C₁₀H₅NH₂, orange; IV, p-ClCH₂CH₂SO₂N(Me)C₆H₄NCO (b.p. 15 175.degree.), V, red; IV, p-AcOCH₂CH₂SO₂N(Me)C₆H₄COCl (b.p. 13 206-9.degree.), V, red; 2,6,8-H₂N(HO₃S)C₁₀H₅OH (VII), III, 2,5-(HO₃S)C₂C₁₀H₅NH₂ (VIII), reddish orange; VII, p-CH₂-CH₂-CH₂SO₂N(Me)C₆H₄COCl, 2,4,8-H₂NNC₁₀H₅(SO₃H)₂, red; 1,3,6,8-(m-H₂NNC₆H₄CONH₂)(HO₃S)C₂C₁₀H₄OH, III, V, bluish red; 1,5,7-H₂N(HO)C₁₀H₅SO₃H, III, m-HO₃SC₆H₄NH₂, reddish orange; VI, p-ClCH₂CH₂SO₂NH₂C₆H₄COCl (m. 133-5.degree.), 4,2-MeO(HO₃S)C₆H₃NH₂, scarlet; IV, p-ClCH₂CH₂SO₂N(Et)C₆H₄COCl, V, red. Other I were prepd. by treating the amine with PhOCOC₁, followed by condensing the product with the sulfonamide, and coupling the product with a diazotized amine (amine, sulfonamide, diazo component, and shade on cellulose given): VI,

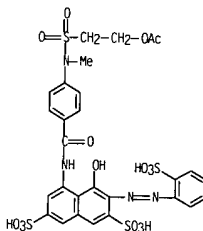
L5 ANSWER 84 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)
 p-H₂NNC₆H₄N(Me)SO₂CH₂CH₂SO₃H (IX), VIII, orange; VI, 5,2-H₂N(MeO)C₆H₃N(Me)SO₂CH₂CH₂SO₃H, VIII, orange; VI, IX, V, reddish yellow.

IT 2421-74-1, 2,7-Naphthalenedisulfonic acid, 4-hydroxy-5-[p-(2-hydroxy-N-methylethanesulfonamido)benzamido]-3-[(o-sulphonyl)azo]-, 5-acetate

(prepn. of)

RN 2421-74-1 CAPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-hydroxy-5-[p-(2-hydroxy-N-methylethanesulfonamido)benzamido]-3-[(o-sulphonyl)azo]-, 5-acetate (ester) (8CI) (CA INDEX NAME)



L5 ANSWER 85 OF 92 CAPLUS COPYRIGHT 2003 ACS

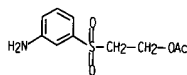
ACCESSION NUMBER: 1965:3454 CAPLUS
 DOCUMENT NUMBER: 62:3454
 ORIGINAL REFERENCE NO.: 62:669c-d
 TITLE: Metallized azo dyes
 INVENTOR(S): Buehler, Arthur; Fasciati, Alfred; Zickendraht, Christian
 PATENT ASSIGNEE(S): CIBA Ltd.
 SOURCE: 8 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CH 376600		19640530	CH	19590326

ABSTRACT:

The monoazo dye (I) 2,5-H₂N(O₂N)C₆H₃OH .fwdarw. 2-HOC10H7 (3.09 parts) and 2.7 parts cryst. CrCl₃ were heated in 200 parts HOCH₂CH₂OH at 122-5.degree. for 4 hrs. The resultant blue 1:1 complex was added to a soln. of the monoazo dye 3,4,1-HO(H₂N)C10H₅SO₃H .fwdarw. 4,1-HOC10H₆SO₃H 4.73, H₂O 200, NaOH 1.6, and Na₂CO₃ 2.1 parts at 80.degree. and stirred until I disappeared. The soln. was poured into NaCl soln. and neutralized with HOAc. to give a dye for polypeptides and polyurethans. Similarly, the 1:1 Cr complex of 2,4,1-HO(HO₃S)C10H₅NH₂ .fwdarw. 8,1-HO₃SC10H₆OH was added to 5,2-Cl(HO)C₆H₃NH₂ .fwdarw. 5,8,1-Cl₂C10H₅OH to give a navy blue dye for wool.

IT 3753-07-9. Ethanol, 2-metanilyl-, acetate (ester)
 (dyes from)
 RN 3753-07-9 CAPLUS
 CN Ethanol, 2-[(3-aminophenyl)sulfonyl]-, acetate (ester) (9C1) (CA INDEX NAME)



L5 ANSWER 86 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1965:3453 CAPLUS
 DOCUMENT NUMBER: 62:3453
 ORIGINAL REFERENCE NO.: 62:669a-c
 TITLE: Dyes containing 2-acetoxyethylsulfonyl and N-(2-acetoxyethyl)sulfonyl groups
 INVENTOR(S): Lodge, Frank; Vellins, Cyril E.
 PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd.
 SOURCE: 10 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3114754		19631217	US	

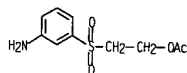
PRIORITY APPLN. INFO.:

GB 19591012

ABSTRACT:

Anthraquinonesulfonic acids contg. groups of the general formula AcOCH₂CH₂SO₂ANH, naphthalenesulfonic acids contg. groups of the general formula AcOCH₂CH₂SO₂AN:N, and Cu phthalocyanines contg. groups of the general formula SO₂NHASO₂CH₂CH₂OAc, where A is an arylene group, give fast dyeings on cellulose. Thus, 27.75 parts 2,5-Cl(AcOCH₂CH₂SO₂)C₆H₃NH₂ (I) is diazotized and coupled with 21.12 parts 2,6-HO(HO₃S)C10H₆ (II) to give I .fwdarw. II, orange on cellulose. Also prepd. are (shade given): Na 1-amino-4-[3-(beta.-acetoxyethylsulfonyl)anilino]anthraquinone-2-sulfonate, bright reddish blue; 2,1,6-H₂N[2,5-MeO(AcOCH₂CH₂SO₂)C₆H₃N:N]C10H₅SO₃H (Cu complex), red; 1,2,4-HO[2,5-HO(AcOCH₂CH₂SO₂)C₆H₃N:N]C10H₅SO₃H (Cu complex), red; 2,5-MeO(AcOCH₂CH₂SO₂)C₆H₃NH₂ (III) .fwdarw. 2,6-H₂NClO₆SO₃H, orange; [III .fwdarw. 8,3,6,1-H₂N(HO₃S)2C10H₄OH] .fwdarw. III, navy-blue; 4,2-AcOCH₂CH₂SO₂(O₂N)C₆H₃NHC₆H₄SO₃H-3, yellow; 4,2-AcOCH₂CH₂SO₂(O₂N)C₆H₃NHC₆H₄SO₃H-3, --; chlorosulfonated Cu phthalocyanine-m-AcOCH₂CH₂SO₂C₆H₄NH₂ reaction product, greenish blue.

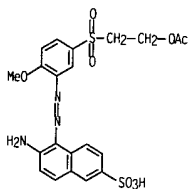
IT 3753-07-9. Ethanol, 2-metanilyl-, acetate (ester)
 (dyes from)
 RN 3753-07-9 CAPLUS
 CN Ethanol, 2-[(3-aminophenyl)sulfonyl]-, acetate (ester) (9C1) (CA INDEX NAME)



L5 ANSWER 86 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

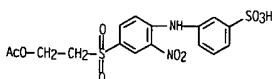
IT 1865-34-5. 2-Naphthalenesulfonic acid, 6-amino-5-[[5-[(2-hydroxyethyl)sulfonyl]-2-methoxyphenyl]azo]-, acetate (ester), Na salt
 1865-35-6. Metanilic acid, N-[4-[(2-hydroxyethyl)sulfonyl]-2-nitrophenyl]-, acetate (ester) 1865-37-8. 2-Anthracesulfonic acid, 1-amino-9,10-dihydro-4-[m-[(2-hydroxyethyl)sulfonyl]anilino]-9,10-dioxo-, benzoate (ester), Na salt 1865-38-9. 2-Anthracesulfonic acid, 1-amino-9,10-dihydro-4-[m-[(2-hydroxyethyl)sulfonyl]anilino]-9,10-dioxo-, propionate (ester), Na salt 1865-39-0. 2-Anthracesulfonic acid, 1-amino-9,10-dihydro-4-[m-[(2-hydroxyethyl)sulfonyl]anilino]-9,10-dioxo-, acetate (ester), Na salt 2245-63-8. 2-Naphthalenesulfonic acid, 6-amino-5-[[5-[(2-hydroxyethyl)sulfonyl]-2-methoxyphenyl]azo]-, acetate (ester) 3864-05-9. 2-Naphthalenesulfonic acid, 5-[[2-chloro-5-[(2-hydroxyethyl)sulfonyl]phenyl]azo]-6-hydroxy-, acetate 3908-59-6. 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3,6-bis[[5-[(2-hydroxyethyl)sulfonyl]-2-methoxyphenyl]azo]-, diacetate (ester) (prepn. of)

RN 1865-34-5 CAPLUS
 CN 2-Naphthalenesulfonic acid, 6-amino-5-[[5-[(2-hydroxyethyl)sulfonyl]-2-methoxyphenyl]azo]-, acetate (ester), sodium salt (8C1) (CA INDEX NAME)



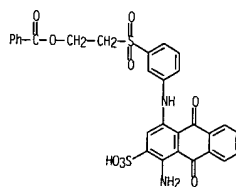
● Na

RN 1865-35-6 CAPLUS
 CN Metanilic acid, N-[4-[(2-hydroxyethyl)sulfonyl]-2-nitrophenyl]-, acetate (ester) (8C1) (CA INDEX NAME)



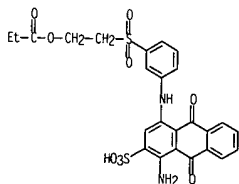
L5 ANSWER 86 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

RN 1865-37-8 CAPLUS
 CN 2-Anthracesulfonic acid, 1-amino-9,10-dihydro-4-[m-[(2-hydroxyethyl)sulfonyl]anilino]-9,10-dioxo-, benzoate (ester), sodium salt (8C1) (CA INDEX NAME)



● Na

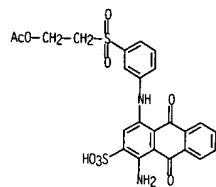
RN 1865-38-9 CAPLUS
 CN 2-Anthracesulfonic acid, 1-amino-9,10-dihydro-4-[m-[(2-hydroxyethyl)sulfonyl]anilino]-9,10-dioxo-, propionate (ester), sodium salt (8C1) (CA INDEX NAME)



● Na

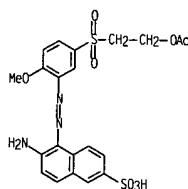
RN 1865-39-0 CAPLUS
 CN 2-Anthracesulfonic acid, 1-amino-9,10-dihydro-4-[m-[(2-hydroxyethyl)sulfonyl]anilino]-9,10-dioxo-, acetate (ester), sodium salt (8C1) (CA INDEX NAME)

L5 ANSWER 86 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



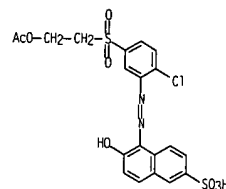
● Na

RN 2245-63-8 CAPLUS
 CN 2-Naphthalenesulfonic acid, 6-amino-5-[[5-[(2-hydroxyethyl)sulfonyl]-2-methoxyphenyl]azo]-, acetate (ester) (8C1) (CA INDEX NAME)

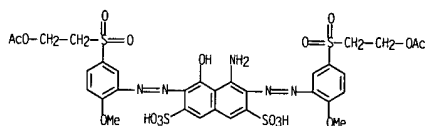


RN 3864-05-9 CAPLUS
 CN 2-Naphthalenesulfonic acid, 5-[[2-chloro-5-[(2-hydroxyethyl)sulfonyl]phenyl]azo]-6-hydroxy-, acetate (ester) (8C1) (CA INDEX NAME)

L5 ANSWER 86 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



RN 3908-59-6 CAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3,6-bis[[5-[(2-hydroxyethyl)sulfonyl]-2-methoxyphenyl]azo]-, diacetate (ester) (7C1, 8C1) (CA INDEX NAME)



L5 ANSWER 87 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1964-484773 CAPLUS
 DOCUMENT NUMBER: 61-84773
 ORIGINAL REFERENCE NO.: 61-14819d-h, 14820a
 TITLE: Metalized azo dyes for wool
 INVENTOR(S): Lodge, Frank; Vellins, Cyril E.
 PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd.
 SOURCE: 8 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3114745		19631217	US	
PRIORITY APPLN. INFO.:		GB	19591012	

ABSTRACT:

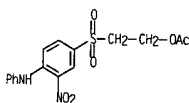
H2O-insol., azo, metalized azo, anthraquinone, and o-nitrodiethylamine dyes contg. SO2NHCH2CH2OAc or SO2NHCH2CH2OAc groups were prepd. The dyes are preferably used for dyeing textile materials in the form of an aq. dispersion. 2,4-H2N(HOCH2CH2SO2)C6H3OH .fwdarw. 1-phenyl-3-methyl-5-pyrazolone 40.2 treated with Cr(OAc)3 14.5 and 50% aq. EtOH 500, and refluxed, and the resulting metalized azo compd. 43.7 stirred for 5 hrs. at room temp. with Ac2O (or AcCl) 20 and C5H5N 300 parts yielded a Cr complex which dyes wool orange shades of excellent fastness. p-HOCH2CH2SO2C6H4NH2 .fwdarw. 2-ClOH7OH 35.6. C5H5N 356, and Ac2O 20 parts stirred 5 hrs. at room temp. gave a dye which yielded fast, orange shades on wool or nylon. 2,5-MeO(HOCH2CH2SO2)C6H3NH2 .fwdarw. 2-ClOH7OH 38.2. HOCH2CH2OH 2400, H2O 400, and Cr(OAc)3 21 refluxed 35 hrs. with stirring and treated with 10% aq. NaCl 5000 parts, and the pptd. Cr complex treated with Ac2O yielded a violet Cr complex. 4,3-Cl(O2N)C6H3SO2CH2CH2OAc 15.8. PhNH2 7. Na2CO3 17.5, and EtOH 150 parts refluxed 22 hrs. with stirring yielded 4,3-PhNH(O2N)C6H3SO2CH2CH2OAc, yellow on polyamides. 4,3-Cl(O2N)C6H3SO2NHCH2CH2OH 18. PhNH2 6.5, CaCO3 20, and EtOH 200 refluxed 30 hrs. with stirring yielded 4,3-PhNH(O2N)C6H3SO2NHCH2CH2OH (I), m. 86.degree., 16.4, Ac2O 21, and C5H5N 300 stirred 5 hrs. at 25.degree., and poured into NaCl 75 in H2O 500 parts gave the acetate of I, m. 106.degree., which dyes yellow shades. 1-Amino-4-[4-(2-hydroxyethylsulfonyl)anilino]anthraquinone (II) 38. C5H5N 186, and Ac2O 18.5 stirred 5 hrs. at 5.degree., and poured into EtOH 800 parts pptd. a compd. which dyes polyamide fibers reddish blue shades. The 3-HOCH2CH2SO2 isomer 5 of II, C5H5N 24.5, and Ac2O 3 parts stirred 4 hrs. at 5.degree., gave a compd. which dyes reddish blue shades. Similar dyes (color of dyeing given) were similarly obtained from the following compds.: 1-amino-4-[3-(N-hydroxyethylsulfonyl)anilino]anthraquinone, reddish blue; 1-(methylamino) - 4 - [4 - methyl - 2-(hydroxyethylsulfonyl)anilino]anthraquinone, greenish blue; 1-amino-4-[3-(N-methyl-N-hydroxyethylsulfonyl)anilino]anthraquinone, blue; 1-amino-4-[4-methyl- 2- (2 - hydroxy - 1 - methylethyl)sulfonyl]anilino]anthraquinone, reddish blue; 1-amino-2-bromo-4-[4-methyl-2-[(2-hydroxy- 1-methylethyl)sulfonyl]anilino]anthraquinone, reddish blue. p-O2NC6H4SH condensed with ClCH2CH2OH gave p-O2NC6H4SCH2CH2OH, m. 60-2.degree., which acetylated with Ac2O and then oxidized yielded p-O2NC6H4SO2CH2CH2OAc, m. 122-4.degree.; this reduced to p-H2NC6H4SO2CH2CH2OAc (III), m. 95-6.degree., III 24.3 diazotized and coupled

L5 ANSWER 87 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

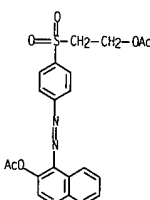
with p-cresol 13.4 parts gave a yellow dye. Similarly were prepd. the following dyes (color of dyeing given): III .fwdarw. 1-ClOH7NHCH2CH2CN, red; 2,5-Cl(AcOCH2CH2SO2)C6H3NH2 (IV) .fwdarw. m-MeC6H4N(CH2CH2OH)2 (V), reddish orange; III .fwdarw. V, reddish orange; IV .fwdarw. 1-ClOH7NHCH2CH2OH, red. Br 31.2 in AcOH 50 added during 0.5 hr. to p-HOCH2CH2C6H4NH2 40 and KSCN 40 in AcOH 320 parts and stirred 24 hrs. at 20.degree., yielded 2-amino-6-(2-hydroxyethylsulfonyl)benzothiazole (VI), m. 181-2.degree., VI diazotized and coupled with III gave a red dye; IV .fwdarw. PhN(CH2CH2CN)2, scarlet; IV .fwdarw. m-MeC6H3N(CH2CH2CN)CH2CH2OMe, bluish red. 2,4-H2N(HOCH2CH2SO2)C6H3OH .fwdarw. 1-phenyl-3-methylpyrazolone 20.1 and 4,2-Cl(H2N)C6H3OH .fwdarw. 1,7-EtO2CNHClOH6OH 19.3, EtOH 500, (CH2OH)2 500, H2O 200, and Cr(OAc)3 14.5 refluxed 16 hrs. with stirring, and the resulting metalized azo compd. stirred 20 hrs. at 10-15.degree. with Ac2O 12 and C5H5N 400 parts gave a brown dye.

IT 93015-94-2. Ethanol, 2-(3-nitro-N-phenylsulfonyl)-, acetate 96171-86-7. Ethanol, 2-[[p-[(2-hydroxy-1-naphthyl)azo]phenyl]sulfonyl]-, diacetate 96578-14-2. Ethanol, 2-[[4-chloro-3-[[4-[(2-hydroxyethyl)amino]-1-naphthyl]azo]phenyl]sulfonyl]-, 1-acetate 98201-01-5. Ethanol, 2-[[p-[(hydroxytolyl)azo]phenyl]sulfonyl]-, 1-acetate (prepn. of)

RN 93015-94-2 CAPLUS
 CN Ethanol, 2-(3-nitro-N-phenylsulfonyl)-, acetate (7C1) (CA INDEX NAME)



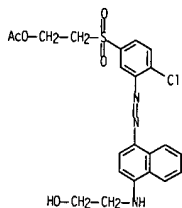
RN 96171-86-7 CAPLUS
 CN Ethanol, 2-[[p-[(2-hydroxy-1-naphthyl)azo]phenyl]sulfonyl]-, diacetate (7C1) (CA INDEX NAME)



L5 ANSWER 87 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

RN 96578-14-2 CAPLUS

CN Ethanol, 2-[[4-chloro-3-[[4-[(2-hydroxyethyl)amino]-1-naphthyl]azo]phenyl]sulfonyl]-, 1-acetate (7C1) (CA INDEX NAME)



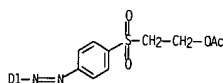
RN 98201-01-5 CAPLUS

CN Ethanol, 2-[[p-[(hydroxytolyl)azo]phenyl]sulfonyl]-, 1-acetate (7C1) (CA INDEX NAME)



D1-Me

D1-OH



L5 ANSWER 88 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1964:418772 CAPLUS

DOCUMENT NUMBER: 61:18772

ORIGINAL REFERENCE NO.: 61:3239e-g

TITLE: Disazo dyes

INVENTOR(S): Lodge, Frank; Stead, Cecil V.; Vellins, Cyril E.

PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd.

SOURCE: 8 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 949316		19640212	GB	19600714

GRAPHIC IMAGE: For diagram(s), see printed CA Issue.

ABSTRACT:

Nonmetalized or copperized compds. of the general structure I, where X is a direct link or NH, Y is MeO, HO, or H, Z is a naphthylazo group attached directly or through a pyrazolone group, and positions on ring A are meta or para. dye cellulosic textiles in conjunction with acid-binding agents, yielding wetfast yellowish red to red shades. Thus, a mixt. of 3,4-H₂N(MeO)C₆H₃SO₂CH₂CH₂OH, 2,6-HOC₁₀H₆SO₃Na (II) 9.2, p-C₆H₄(COCl)₂ 2, and pyridine 100 was refluxed for 22 hrs., cooled to 20.degree., and Et₂O 500 parts added to ppt. I [X = direct link, Y = 4-MeO, Z = 3-[2,6,1-HO(NaO₃S)C₁₀H₅N-N] (Z1), paraposition on A] (III), which, filtered, washed with Et₂O, and dried, dyed cotton yellowish red. III was also prepd. by coupling tetrazotized 1,4-[3,4-H₂N(MeO)C₆H₃SO₂CH₂CH₂O₂C]2C₆H₄ (m. 186-8.degree.: from the dinitro analog, m. 210-11.degree.) with II. Similar I were prepd. (X, Y, Z, position of groups on A, and shade given): direct link, 4-MeO, Z1, meta, yellowish red; direct link, 4-HO, 3-[1,4,2-HO(HO₃S)C₁₀H₅N-N], para, red (copperized); direct link, H, 3-[3-methyl-4-(6-sulfo-2-naphthylazo)-5-pyrazolon-1-yl], para, orange; and NH, H, 4-[1,4,2-HO(HO₃S)C₁₀H₅N-N], para, reddish orange.

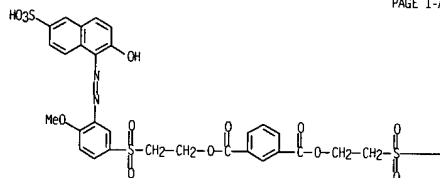
IT 106322-04-7, Isophthalic acid, diester with 6-hydroxy-5-[[5-[(2-hydroxyethyl)sulfonyl]-2-methoxyphenyl]azo]-2-naphthalenesulfonic acid 108243-92-1. Copper, [hydrogen 4-hydroxy-3-[[2-hydroxy-5-[(2-hydroxyethyl)sulfonyl]phenyl]azo]-1-naphthalenesulfonate(2-)]-, phthalate (prepn. of)

RN 106322-04-7 CAPLUS

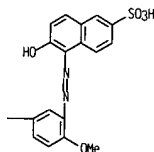
CN Isophthalic acid, diester with 6-hydroxy-5-[[5-[(2-hydroxyethyl)sulfonyl]-2-methoxyphenyl]azo]-2-naphthalenesulfonic acid (7C1) (CA INDEX NAME)

L5 ANSWER 88 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

PAGE 1-A



PAGE 1-B

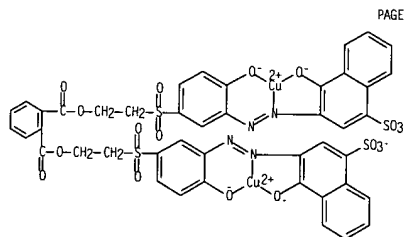


RN 108243-92-1 CAPLUS

CN Copper, [hydrogen 4-hydroxy-3-[[2-hydroxy-5-[(2-hydroxyethyl)sulfonyl]phenyl]azo]-1-naphthalenesulfonate(2-)]-, phthalate (7C1) (CA INDEX NAME)

L5 ANSWER 88 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

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PAGE 2-A

●2 H⁺

L5 ANSWER 89 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1964:83389 CAPLUS

DOCUMENT NUMBER: 60:83389

ORIGINAL REFERENCE NO.: 60:14650C-g

TITLE: Stilbyl triazole optical whitening agents

INVENTOR(S): Adams, Dennis A. W.; Sarkar, Asim K.

PATENT ASSIGNEE(S): Hickson & Welch Ltd.

SOURCE: 7 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3119820		19640128	US	
DE 1207331			DE	
GB 991931			GB	

PRIORITY APPLN. INFO.: GB 19600504

GRAPHIC IMAGE: For diagram(s), see printed CA Issue.

ABSTRACT:

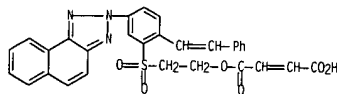
Compds. of the general structures I and II whiten textile fibers, including poly(ethylene terephthalate) and polyamides. They are prep'd. by oxidizing the o-amino azo dyes formed by coupling aminostilbenes to aromatic amines. Thus, 4,2-H₂N(HOCH₂-CH₂SO₂)C₆H₃CH:CHPh 15.15 was diazotized and coupled with 2-C₁₀H₇NH₂ 7.15, and the azo compd. refluxed with pyridine 200, CuSO₄ 30, H₂O 50, and excess NH₃, until the color was discharged. The product was ppt'd. by addn. of H₂O, washed with H₂O, and recrystd. from HOAc to give I (R = CH₂CH₂OH, X = Y = Z = H) (IV). Similarly, other I were prep'd. (R, X, Y, and Z given): CH₂CH₂CO₂Na, H, SO₃Na, H; CH₂CH₂OH, H, SO₃H, H; CH₂CH₂OH, H, H, SO₃H; CH₂CH₂CO₂Na, H, H, H; CH₂CH(OH)Me, H, H, H; CH₂CH(OH)Me, CO₂Na, H, H; CH₂CH(OH)CH₂OH, H, H, H; CH₂CH(OH)CH₂CH₂OH, H, H, H; CH₂CH(OH)CH₂CH₂OH, H, H, SO₃H. A mixt. of IV 5, maleic anhydride 1, HCONMe₂ 50, and pyridine 2.5 parts heated for 30 min. at 100-20 degree, mixed with H₂O, and barely acidified to Congo red with HCl gave 6 parts I (R = CH₂CH₂CO₂CH:CHCO₂H, X = Y = Z = H). Similarly, the following I were prep'd.: (R, X, Y, and Z given): CH₂CH₂CO₂CH₂CH₂CO₂H-2, H, H, H; CH₂CH₂CO₂SO₃H, H, H, H; CH₂CH₂CO₂SO₃H, H, H, SO₃H; CH₂CH(OSO₃H)CH₂CH₂CO₂Me, H, H, H. The following II were prep'd. from 6-aminoindazole and its 4SO₃H deriv. (R and X given): CH₂CH₂CO₂Na, H; CH₂CH₂CO₂Na, SO₃Na; CH₂CH₂OH, H (V); CH₂CH₂OH, SO₃H. An isomer of V was prep'd. from 5-aminoindazole. 4,2-O₂N(HO₂CCH₂CH₂SO₂)C₆H₃CH:CHPh, m. 238 degree. (EtOH), was prep'd. by refluxing a soln. of 29 g. 5,2-O₂N(PhCH:CH)C₆H₃SO₃H in 1.6 l. 50% aq. EtOH with 10.8 g. CH₂:CHCO₂H for 7 hrs.

IT 103479-21-6, Maleic acid, 2-[[[5-(2H-naphtho[1,2-d]triazol-2-yl)-2-styrylphenyl]sulfonyl]ethyl ester 105765-56-8, Phthalic acid, 2-[[[5-(2H-naphtho[1,2-d]triazol-2-yl)-2-styryl-phenyl]sulfonyl]ethyl ester (prepn. of)

L5 ANSWER 89 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)

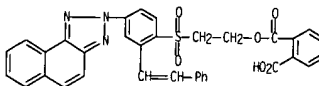
RN 103479-21-6 CAPLUS

CN Maleic acid, 2-[[[5-(2H-naphtho[1,2-d]triazol-2-yl)-2-styrylphenyl]sulfonyl]ethyl ester (7C1) (CA INDEX NAME)



RN 105765-56-8 CAPLUS

CN Phthalic acid, 2-[[[5-(2H-naphtho[1,2-d]triazol-2-yl)-2-styrylphenyl]sulfonyl]ethyl ester (7C1) (CA INDEX NAME)



L5 ANSWER 90 OF 92 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1964:61457 CAPLUS

DOCUMENT NUMBER: 60:61457

ORIGINAL REFERENCE NO.: 60:10844b-d

TITLE: Water-sol. reactive dyes

INVENTOR(S): Lodge, Frank; Vellins, Cyril Eric

PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd.

SOURCE: 19 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 924990		19630501	GB	19591012

ABSTRACT:

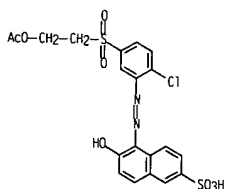
The title dyes, contg. at least 1 SO₃H group and also a AcOCH₂CH₂SO₂ group, are suitable for cellulose and wool. Thus, 3,4-H₂N(R)C₆H₃SO₂CH₂CH₂CO₂Ac (I, R = Cl) 27.75 is diazotized and coupled with 2,6-HOC₁₀H₆SO₃H 21.12 parts to yield an orange dye for cellulose. Similarly, I (R = OMe) (II) 2,6-H₂N₂C₁₀H₆SO₃H (III) dyes orange; II (2 moles) .fwdarw. 1.8,3,6-H₂N(HO)C₁₀H₄(SO₃H)₂ dyes navy-blue. The following dyes are prep'd. by treating the indicated hydroxy compd. with Ac₂O in C₅H₅N (reactant, shade, fiber): 1-amino-4 - [3 - (.beta. - hydroxyethylsulfonyl)aniline]anthraquinone-2-sulfonic acid, reddish blue, cotton; 3,4-H₂N(RO)C₆H₃SO₂CH₂CH₂OH (IV, R = Me) .fwdarw. III, orange, wool; Cu complex of IV (R = H) .fwdarw. 1,4-HOC₁₀H₆SO₃H, red, cotton; 4,2-HOCH₂CH₂SO₂(O₂N)C₆H₃NHC₆H₄SO₃Na-3, yellow, cellulose. The reaction product of chlorosulfonated Cu phthalocyanine and I (R = H) dyes cotton greenish blue shades when applied with an acid binding agent.

IT 3864-05-9, 2-Naphthalenesulfonic acid, 5-[[[2-chloro-5-[(2-hydroxyethyl)sulfonyl]phenyl]azo]-6-hydroxy-, acetate (prepn. of)

RN 3864-05-9 CAPLUS

CN 2-Naphthalenesulfonic acid, 5-[[[2-chloro-5-[(2-hydroxyethyl)sulfonyl]phenyl]azo]-6-hydroxy-, acetate (ester) (8C1) (CA INDEX NAME)

L5 ANSWER 90 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



L5 ANSWER 91 OF 92 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1964:17430 CAPLUS
 DOCUMENT NUMBER: 60:17430
 ORIGINAL REFERENCE NO.: 60:3135g-h.3136a-c
 TITLE: Dyes containing carboxylic ester groups
 INVENTOR(S): Lodge, Frank; Vellins, Cyril E.
 PATENT ASSIGNEE(S): Imperial Chemical Industries, Ltd.
 SOURCE: 15 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 930612		19630703	GB	19591012
DE 1224424			DE	

ABSTRACT:

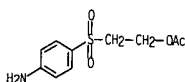
Dyes contg. the SO₂N(R)]n-ICH₂CH₂OAc. group where R is H or Me, and n is 1 or 2. dye wool, polyamides, and cellulose. Thus, a mixt. of the monoazo compd. (II) 40.2 [2.4-H₂N(HOCH₂CH₂O₂S)C₆H₃OH (III)] .fwdarw. 1-phenyl-3-methyl-5-pyrazolone], Cr(OAc)₃ 14.5, and 50% EtOH 500 parts was refluxed with Na₂CO₃ until metalization was complete. The soln. was poured into 10% aq. NaCl, and the ppt. filtered and dried. The product 43.7. Ac₂O 20, and pyridine 300 parts were stirred 5 hrs. at room temp., the soln. poured into ice 200 and H₂O 300, and NaCl 50 parts added. The pptd. dye was filtered and dried. It dyed wool orange from a neutral or weakly acid bath. Similarly, other dyes were prepd. (reactants and color given: AQ is anthraquinone): 4-(HOCH₂CH₂O₂S)C₆H₄NH₂ .fwdarw. 2-HOClOH₇. Ac₂O, orange; 2.5-MeO(HOCH₂CH₂O₂S)C₆H₃NH₂ .fwdarw. 2-HOClOH₇, Cr(OAc)₃, Ac₂O; violet; 4.3-Cl(O₂N)C₆H₃SO₂CH₂CH₂OAc (IV), PhNH₂, yellow; 3.4-O₂N(PhNH)C₆H₃SO₂NHCH₂CH₂O₂H (V), Ac₂O, (product: yellow crystals, m. 106.degree.), yellow; 1.4-H₂N[4-(HOCH₂CH₂O₂S)C₆H₄NH]AQ, Ac₂O, reddish blue; 1.4-H₂N[3-(HOCH₂CH₂O₂S)C₆H₄NH]AQ, Ac₂O, reddish blue; 1.4-H₂N[3-(HOCH₂CH₂O₂S)C₆H₄NH]AQ, Ac₂O, reddish blue; 1.4-H₂N[3-(HOCH₂CH₂O₂S)C₆H₄NH]AQ, Ac₂O, blue; 4-(AcOCH₂CH₂O₂S)C₆H₄NH₂ (VI) .fwdarw. 4-MeC₆H₄OH, yellow; VI .fwdarw. 3-MeC₆H₄N(CH₂CH₂O₂H)₂ (VII), reddish orange; VI .fwdarw. 1-ClOH₇NHCH₂CH₂OH, red; 2.5-Cl(AcOCH₂CH₂O₂S)C₆H₄NH₂ (VIII) .fwdarw. VII, reddish orange; 2-amino-6-(beta.-hydroxyethylsulfonyl)benzothiazole (IX) .fwdarw. 3-MeC₆H₄N(CH₂CH₂O₂H)₂, Ac₂O, bluish red; II, 2.4-H₂N(Cl)C₆H₃OH .fwdarw. 1.7-(EtO₂CNH)ClOH₆OH, Cr(OAc)₃, Ac₂O, brown; and II, III .fwdarw. 2.4-HO(HOCH₂CH₂O₂S)ClOH₆, Cr(OAc)₃, Ac₂O, brown. IV was prepd. by acylating the compd. obtained by treating 4.3-Cl(O₂N)C₆H₃SO₂Na with ClCH₂CH₂OH in aq. medium. 4.3-Cl(O₂N)C₆H₃SO₂NHCH₂CH₂OH 18, PhNH₂ 6.5, CaCO₃ 20, and EtOH 200 parts were refluxed for 30 hrs., the mixt. filtered, EtOH distd., and the residual oil poured into H₂O 800 parts to give V, m. 86.degree., 4-O₂NC₆H₄SH was condensed with (ClCH₂)₂ to give 4-O₂NC₆H₄SHCH₂CH₂OH, m. 60-62.degree., which with Ac₂O gave the Ac deriv. This was oxidized to 4-O₂NC₆H₄SO₂CH₂CH₂OAc, m. 122-4.degree., which was reduced to VI, m. 95-6.degree., VIII was prepd. by converting 4.3-Cl(O₂N)C₆H₃SO₂Cl to the sulfinic acid, condensing with

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 ClCH₂CH₂OH, acetylating, and reducing the NO₂ group. Br 31.2 in AcOH 50 was added in 30 min. to 4-(HOCH₂CH₂O₂S)C₆H₄NH₂ 40 and KSCN 40 in AcOH 320 parts and the mixt. was stirred 24 hrs. at 20.degree., The ppt. was filtered, refluxed with 2N HCl 1000 parts for 6 hrs., clarified, made alk. with Na₂CO₃, cooled to 20.degree., filtered, and the ppt. dried to give IX, m. 181-2.degree.,

IT 73567-87-0. Ethanol, 2-sulfanilyl-. acetate 93015-94-2.
 Ethanol, 2-(3-nitro-N-phenylsulfonyl)-. acetate 94822-60-3.
 Ethanol, 2-[[p-[(6-hydroxy-m-tolyl)azo]phenyl]sulfonyl]-. 1-acetate 99671-04-2. Ethanol, 2-[[p-[(2-hydroxy-1-naphthyl)azo]phenyl]sulfonyl]-. acetate 100301-68-6. Ethanol, 2-[[3-[(2-hydroxy-1-naphthyl)azo]-4-methoxyphenyl]sulfonyl]-. acetate 107895-76-1. Hydrogen bis[2-[[4-hydroxy-3-[(2-hydroxy-1-naphthyl)azo]phenyl]sulfonyl]ethanolato(2-)]chromate(III), diacetate (prepn. of)

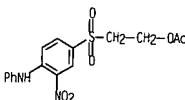
RN 73567-87-0 CAPLUS

CN Ethanol, 2-[[4-aminophenyl]sulfonyl]-. acetate (ester) (9CI) (CA INDEX NAME)



RN 93015-94-2 CAPLUS

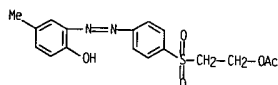
CN Ethanol, 2-(3-nitro-N-phenylsulfonyl)-. acetate (7CI) (CA INDEX NAME)



RN 94822-60-3 CAPLUS

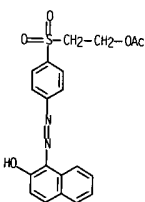
CN Ethanol, 2-[[p-[(6-hydroxy-m-tolyl)azo]phenyl]sulfonyl]-. 1-acetate (7CI) (CA INDEX NAME)

L5 ANSWER 91 OF 92 CAPLUS COPYRIGHT 2003 ACS (Continued)



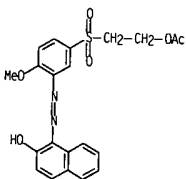
RN 99671-04-2 CAPLUS

CN Ethanol, 2-[[p-[(2-hydroxy-1-naphthyl)azo]phenyl]sulfonyl]-. acetate (7CI) (CA INDEX NAME)



RN 100301-68-6 CAPLUS

CN Ethanol, 2-[[3-[(2-hydroxy-1-naphthyl)azo]-4-methoxyphenyl]sulfonyl]-. acetate (7CI) (CA INDEX NAME)

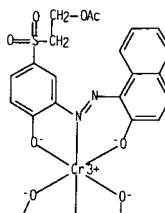


RN 107895-76-1 CAPLUS

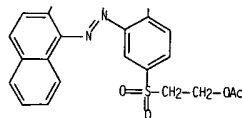
CN Hydrogen bis[2-[[4-hydroxy-3-[(2-hydroxy-1-naphthyl)azo]phenyl]sulfonyl]ethanolato(2-)]chromate(III), diacetate (7CI) (CA INDEX NAME)

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ACCESSION NUMBER: 1962:61132 CAPLUS

DOCUMENT NUMBER: 56:61132

ORIGINAL REFERENCE NO.: 56:11758h-1,11759a-c

TITLE: Water-insoluble mono- and disazo dyes

INVENTOR(S): Fishwick, Brian Ribbons; Johnson, Eric L.;

Wardleworth, James

PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 877250		19610913	GB	19581029

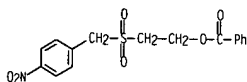
ABSTRACT:

Water-insol. mono- and disazo dyes contg. MeSO₂CH₂CH₂ groups are obtained by treating the corresponding HOCH₂CH₂SO₂ compds. with MeSO₂Cl in basic media, or by treating a coupling component of the necessary type with a diazo component. These dyes when dispersed in aq. media dye polyamide materials in yellow, red, blue, and violet shades possessing good wash-fastness. Thus, 13.8 parts 4-O₂NC₆H₄NH₂ (I) diazotized and coupled with 24.3 parts PhN(Et)C₂H₄O₃Me gave a dye whose aq. dispersions gave red shades on polyamides with good wetfastness. Similarly the MeSO₂Cl derivs. of dyes were prepd. (diazotized amine, coupler, and color given): 5-nitro-2-aminothiazole (II), 3-MeC₆H₄N(Et)CH₂CH₂OH (III), blue; II, 3-MeC₆H₄N(CH₂CH₂CN)CH₂CH₂SO₃Me, red; I, PhN(Me)CH₂CH₂CH₂SO₃Me, red; 4-H₂NC₆H₄OCH₂CH₂OH (IV), PhNMe₂, yellow; IV, p-cresol, yellow; IV, 1-phenyl-3-methyl-5-pyrazolone (V), reddish yellow; 3,4-Cl(H₂N)C₆H₃NPh, III, red; 4-H₂NC₆H₄CH₂SO₂CH₂CH₂OH, V, yellow; and IV, 1-(otoly)-3-methyl-5-pyrazolone, yellow. The product from H₅CH₂CH₂OH and 4-O₂NC₆H₄CH₂Cl was treated with BzCl to give 4-O₂NC₆H₄CH₂SO₂CH₂CH₂OBz, m. 73-4.degree., which was oxidized to the sulfone, m. 128-9.degree., which was saponid. to 4-O₂NC₆H₄CH₂SO₂CH₂CH₂OH, m. 129-30.degree., which was treated with MeSO₂Cl to give 4-O₂NC₆H₄CH₂SO₂CH₂CH₂SO₃Me, m. 141-2.degree., which was reduced to the amine, m. 184-6.degree..

IT 92964-26-6. Ethanol, 2-[(p-nitrobenzyl)sulfonyl]-, benzoate (prepn. of)

RN 92964-26-6 CAPLUS

CN Ethanol, 2-[(p-nitrobenzyl)sulfonyl]-, benzoate (7CI) (CA INDEX NAME)



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